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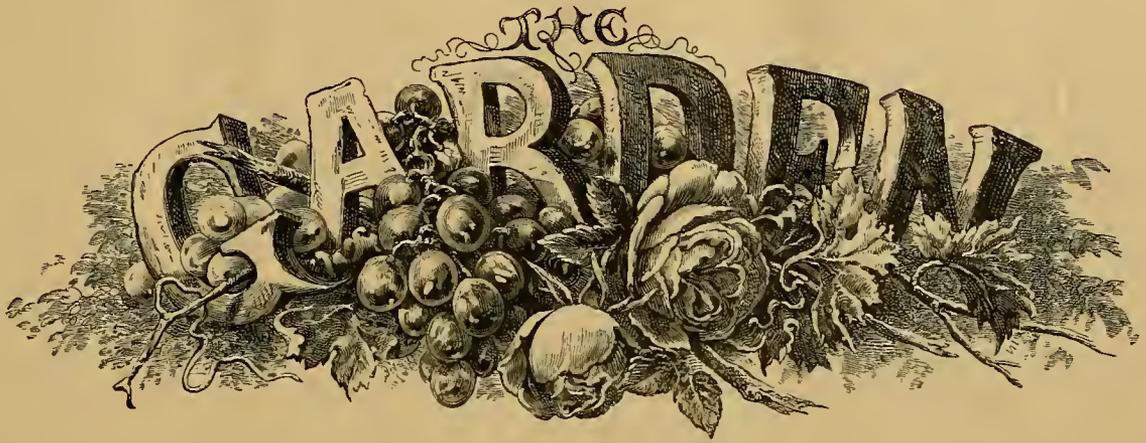
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F. W. BURBIDGE, M.A. V.M.H.



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— TO —

F. W. BURBIDGE, M.A.

THE SIXTY - SIXTH VOLUME OF "THE GARDEN"

Is dedicated.

MR. BURBIDGE, whose name is a household word in the world of flowers, was born at Wymeswold, Leicestershire, on March 21, 1847. His father—Mr. John Burbidge—was a farmer and fruit grower, and in childhood's days the son gained that love for horticulture which has dominated a useful and active life. Mr. Burbidge was educated by home study and in village schools, and was later a student of horticulture in private gardens and in the Chiswick garden of the Royal Horticultural Society, where he obtained in 1868 premier prizes and certificates at the examinations of that well-known horticultural centre. Mr. Burbidge also gained high honours in the examinations of the Society of Arts (1874), and from Chiswick entered the Royal Gardens, Kew, where his thoughts were directed to the acquirement of botany and horticultural science.

Mr. Burbidge has written many valuable works. The first to appear was "Domestic Floriculture" (1875); "The Narcissus," a monument of industry and classification (1875); "Cultivated Plants" (1877); Horticulture in Stamford's Series on "British Industries," in the same year; "The Gardens of the Sun, or Travels in Borneo and Sulu Archipelago" (1880); and "The Chrysanthemum" (1884-85), &c.

From the year 1873 to 1877 Mr. Burbidge was a member of the staff of THE GARDEN, but during 1877-78 visited Borneo, a journey fruitful in good results, many original drawings being made, dried specimens collected, and now popular plants introduced. The following, among others, were introduced by Mr. Burbidge from the tropics: *Nepenthes Rajah* (Mt. Kina Balu); *N. bicalcarata* (Lawas River); *Burbidgea nitida* Hook. f., new genus (Lawas River); *Cypripedium lawrenceanum* (mountains near Brunai); *Pinanga Veitchii* (forests, Lawas River); *Piptospatha insignis* and *Gamogyne Burbidgei* (both from Tawaran River); *Pothos celatocaulis* (Labuan); *Dendrobium Burbidgei* and *D. cerinum* (both from Sulu Archipelago); *Bulbophyllum leysianum* and *B. petreianum* (from the foot of Kina Balu, beside streams); *Phalænopsis Mariæ* (Sulu Islands); *Aerides Burbidgei*, rosy flowered (from Sulu).

Calceolaria Burbidgei (W. E. G.) was raised in the College Gardens, Dublin, in 1880 (= *C. Pavoni* × *C. fuchsifolia*). It is a useful plant, flowering nearly all the year, and especially during winter.

Mr. Burbidge has been Curator of the Trinity College Botanic Gardens, Dublin, since 1879, and his experience gained there has been willingly given to the horticultural press and Journals of the Royal Horticultural Society. An enthusiastic gardener and botanist, Mr. Burbidge has our heartiest wishes for years of health to carry on his horticultural work in the gardens which he has done so much to improve and make a centre for botanical research and horticultural practice in Ireland.

Mr. Burbidge is an Honorary Master of Arts of the Dublin University (T.C.D.) and Member of the Royal Irish Academy, a Victorian Medallist of Honour and Veitch Medallist, besides holding other honourable degrees.

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THE GARDEN

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[JULY 2, 1904.]

EXHIBITION ROSES.

THE FORTHCOMING SHOW.

I NTEREST in exhibition Roses naturally centres round the National Rose Society's metropolitan show in the Temple Gardens, which this year takes place on Wednesday next, and from reports that reach me from north, south, east, and west there seems little doubt that, when the verdict comes to be delivered and judgment passed, the coming exhibition will be the best the society has had for many years. It is generally unwise to prophesy unless you know, but I will place before your readers extracts of letters that have reached me from some of our leading exhibitors and let them judge for themselves. For reasons unnecessary to mention, I give the districts my correspondents write from :

Hitchin.—"I do not think my Roses have ever looked better. A little rain would be beneficial perhaps, but at present only the surface is dry. The season is earlier than anticipated some months back, but Hybrid Perpetuals should be at their best by the 6th."

Colchester.—(1) "Our plants are looking splendid. The Roses that take the champion prize this year will be worth going a long way to see." (2) "Could not be better. The garden Roses are exceptionally promising. Some of the early sorts will be past their best, but there are plenty to choose from. All flowers are coming very perfect, and exceptionally good in colour."

South Essex.—"My trees are all right, and I am feeling very happy about the 6th. This will be a Nadaiillac year if my own trees are any criterion."

Middlesex, North.—"All Roses round here are looking grand. I do not think mine were ever better, and T—'s are just as good."

Middlesex, South.—"Roses, especially Teas, promise well, though rather early, I think. Mildred Grant will take some beating this year, at any rate."

Surrey (Leatherhead and Reigate).—(1) "Every sign of a great year. I wish the Temple exhibition had been a week earlier. I am already cutting beautiful blooms." (2) "Excellent; am quite hopeful."

Worcestershire.—"The prospects are distinctly good. Our light soil wants rain. The weather has just suited the Teas."

Birmingham and the Midlands.—"Yes, I shall be at the Temple show, and I hope in good fighting trim."

It is seldom one gets such unanimous consensus of opinion as the above. The Roses will be there, at any rate. It is not too late to remind your readers who think of attending the show that if they want to see the Roses at their very best they must come early. This means purchasing a ticket a little more expensive; but there is still time to become a member. The subscription is only 10s. 6d., and this carries the privilege of three five shilling tickets, besides all the publications of the society, which are alone worth the money, plus a book on "How to Prune," which is now in course of preparation, and which will form the last word on this most important subject. The hon. secretary, Mr. E. Mawley, of Rosebank, Berkhamstead, Herts, will be glad to receive the name of any intending member. No introduction is necessary; simply name and address and a subscription of half a guinea or a guinea, the latter amount carries double the number of five shilling tickets.

The schedule for the show contains a lot of new features. Roses for every conceivable object will be exhibited—arches, pergolas, creeping Roses for slopes and rockwork, bedding Roses, garden Roses, and last, but not least, the Rose in its highest phase of possible beauty—that Rose *par excellence*, the exhibition Rose.

HERBERT E. MOLYNEUX.

Brantwood, Balham.

GARDENERS' ROYAL BENEVOLENT INSTITUTION.

THE annual festival of this praiseworthy charity was held on Tuesday last in the Whitehall Rooms of the Hotel Metropole, when Mr. Harry J. Veitch, the treasurer, presided. It was a memorable evening; the rooms were filled with gardening enthusiasts, who not only think of the practical work of the garden, but of those who labour to bring it to perfection. Ill-health is a heritage of both rich and poor. The rich can provide comforts to alleviate it, but the poor cannot, and it is for the poor the Gardeners' Royal Benevolent Institution was founded. A great effort has been made this year by Mr. Veitch to increase the funds of the charity, and it was an excellent thought of the committee to publish an illustrated and well-printed account of the institution. This pamphlet tells us that it was founded one winter's night in 1839 at the old Crown and Anchor Tavern in the Strand. It is interesting to know that the first chairman was Mr. George Glenny, and since that year over £100,000 have been collected. The first president was H.R.H. the first Duke of Cambridge, and in February, 1843, a paid secretary was appointed—Mr. Edward Cutler—whose untiring industry in the cause of the institution is fresh in mind. The institution has grown in influence, but it is unable to cope with all the distressed cases

that come before the committee. Although so large a sum was collected on Tuesday evening, it must be remembered that the demands upon those who are able to assist never relax. There are always applicants, and many must be refused the aid they so urgently require through insufficient funds. The history and aims of the institution are set forth in this booklet, and portraits are published of the patrons, Their Majesties the King and Queen, H.R.H. the Princess of Wales, and Her late Majesty Queen Victoria; the president, the Prince of Wales, the late Mr. Cutler, the Very Rev. Dean Hole, V.M.H., Sir Trevor Lawrence, Bart., K.C.V.O., V.M.H., Mr. Harry J. Veitch (the treasurer, and chairman this year), Mr. G. J. Ingram (the secretary), the late Mr. John Lee, and the three trustees (the Hon. Walter Rothschild, M.P., V.M.H., Mr. Bruno Schröder, and Mr. N. N. Sherwood, V.M.H.).

The list of those who have taken the chair includes the names of the Right Hon. John Johnson, Lord Mayor of London (1846), the Right Hon. Lord Ebury, the Right Hon. the Earl of Carlisle, Mr. Joseph Paxton, and again after a knighthood had been conferred upon him, the Right Hon. the Earl of Carnarvon, the Right Hon. the Earl of Ducie, Sir C. Wentworth Dilke, Bart., M.P., the Right Hon. Sir Robert Peel, Bart., the Right Hon. the Earl of Derby, His Grace the Duke of Argyll, K.T., His Highness the Duke of Teck, G.C.B., the Very Rev. S. Reynolds Hole, Dean of Rochester, the Right Hon. Lord Henry Gordon-Lennox, M.P., Alfred de Rothschild, Sir S. Morton Peto, Sir Trevor Lawrence, Bart., Robert Marnock, Serjeant Cox, H.R.H. the Duke of Connaught, K.G., the Right Hon. Lord Aberdare, the Right Hon. Sir J. Whittaker Ellis, Bart., M.P., Alderman Cotton, N. N. Sherwood, Leopold de Rothschild, the Right Hon. Joseph Chamberlain, the Right Hon. Lord Brassey, K.C.B., Baron Schröder, Sir Julian Goldsmid, Bart., M.P., His Grace the Duke of Fife, K.T., the Right Hon. the Earl of Lathom, G.C.B., the Right Hon. Lord Rothschild, Sir Oswald Mosley, Bart., His Grace the Duke of Portland, the Right Hon. Lord Llangattock, His Grace the Duke of Marlborough, and the Right Hon. the Earl of Warwick.

The early history of the institution should be read by all who are interested in charities, whether those organised to help distressed gardeners or otherwise, and the following extract from this booklet will show how greatly funds are needed to carry on the great work begun sixty-five years ago:—

"At the date of the Diamond Jubilee of Her late Majesty Queen Victoria, the invested funds of the institution amounted to nearly £30,000, yielding an annual income of about £860. No material addition has been made since, with the exception of the Victorian Era and Good Samaritan Funds, of which the derived income is applied to the special purposes for which they were founded. At that time there were 161 pensioners on the list, involving an annual outlay of nearly £3,000. Now (1904) there are 207 pensioners on the list, at an annual cost of £3,796, exclusive of rent of office and expenses of management. To provide for the sum expended in excess of the income from the invested funds, the committee have to depend on the life and annual subscriptions of members and the donations of the benevolent, sources of income always liable to fluctuation from year to year. And although there has been a gradual increase in

the actual income from year to year, coincident with this increase, the demands on the funds, especially during the past three years, have increased in an enormously greater proportion, so that the committee are no longer able to place on the pension list without election by votes candidates who have subscribed to the institution. Thus at the election in January, 1903, thirty-one of the applicants were unsuccessful, most of them subscribers in their more prosperous days, and several of them totally blind."

The dinner was held, as usual, in the Whitehall Rooms of the Hotel Metropole, and it is pleasant to know that there was a record attendance and a record subscription. The sum collected amounted to £3,500, and the chairman, Mr. Harry J. Veitch, who is also the treasurer, must have felt that his labours were rewarded. After the usual loyal toasts, Mr. Veitch proposed "Continued Prosperity to the Gardeners' Royal Benevolent Institution," and in the course of his remarks referred to the work that has been accomplished in the past, the great help of the auxiliary branches, and the magnificent donation of £500 from Mr. N. N. Sherwood, who has also given a similar sum to the Royal Gardeners' Orphan Fund. He alluded to the investments, and mentioned that an adequate sum was necessary for paying the pensions. Mr. Veitch read many letters conveying the grateful thanks of those who were benefiting by the institution, but regretted deeply that so many were unsuccessful every year. Funds were necessary to place the applicants—all thoroughly deserving of sympathy—upon the funds. This toast was responded to by Mr. George Dickson, V.M.H., who also warmly commended the institution to those in a position to help it. "Horticulture in all its Branches" was proposed by Mr. J. Colman, D.L., J.P., and responded to by Mr. J. Cursey Fowler, treasurer of the Royal Horticultural Society. "The Health of the Chairman" was rapturously received, and was proposed by Mr. Arthur W. Sutton, J.P., V.M.H. He referred to the influence of Mr. Veitch in all things that promoted the welfare and happiness of those in adversity, mentioning incidentally that to-morrow (Wednesday) was the chairman's birthday.

The tables were beautifully decorated, and among the more important subscriptions were the following: The Chairman, 100 guineas; Mr. N. N. Sherwood, £500; Messrs. J. Veitch and Son, Messrs. Sutton and Sons, and Messrs. Rothschild and Sons, each 100 guineas; Arthur W. Sutton, 15 guineas for the Victorian Era Fund, and Leonard G. Sutton, 10 guineas for the Good Samaritan Fund; Mrs. H. J. Veitch, £26 5s.; W. L. Corry, £63; Leopold Salomons, J. Gurney Fowler, and Jeremiah Colman, £52 10s. each; Alfred Watkins, £38 17s. 6d.; Alderman Osman, £35; F. Cooper, £31 9s. 5d.; W. Robinson and R. Milligan Hogg, each £25; W. Crump, £23 5s.; H. Hicks, Manchester, £22 10s. 6d.; A. Porteous, £21 10s.; Messrs. Hurst and Son and A. G. Uiat, each £21; James Sweet, A. B. Wadds, and H. Parr, £20 each; G. Profit, £18 5s.; David W. Thomson, £16 13s. 6d.; H. J. Chapman, £16 11s.; George Harrow, £17 10s.; Herbert Hicka, 15 guineas; A. Mackellar, £16 17s.; Thames Bank Iron Company, 15 guineas; H. G. Cove, 13 guineas; James Hudson and John Heal, £12 12s. each; P. O. Knowles, £12; George Paul, £13 8s.; E. F. Hawes, 12 guineas. The following contributed 10 guineas each: Sir Trevor Lawrence, Bart., Alfred de Rothschild, Leopold de Rothschild, Lionel de Rothschild, Henry Jones, C. Czarnikow, W. E. Green, J. F. Gabriel, George Bunyard and Co., Barr and Son, S. Mortimer, W. Atkinson, C. Allen, proprietors of *Country Life*, H. J. Wimsett, W. Thompson, H. J. Adama, George A. Dickson, and T. M. Segar; Mr. J. Douglas, £10; Messrs. Veitch and Son, Exeter, 7 guineas; J. L. Woodroffe and N. F. Barnes, each 6 guineas; J. Willard, £6; W. Roupell, 7 guineas; and H. W. Nutting, £7 17s. The following contributed 5 guineas each: Sir Walter Smyth, Bart., Messrs. Edward Hudson, proprietors of THE GARDEN, E. T. Cook, T. L. Green, Francis Wellesley, Bruno Schröder, Walter Cobb, Carl Menyer, James Lee, Alfred Beit, W. Rapley, W. J. Nutting, Thomas Jones, W. J. Jefferies,

Protheroe and Morris, S. Osborn, Barr and Sons (additional), and W. Cutbush and Son. Messrs. Owen Thomas, W. Bain, R. Dean, and J. Ollerhead contributed 3 guineas each. The Reading and Worcester auxiliaries collected very large sums, and the amount forthcoming from Covent Garden friends was £407, making a total of £3,500.

The health of Mr. Ingram, the secretary, was warmly received. An interesting number in the programme of music was a song composed by Mr. Edward Sherwood, son of Mr. N. N. Sherwood, "Hope Long Deferred."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

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.



MR. HARRY J. VEITCH.

(Chairman of the Festival Dinner of the Gardeners' Royal Benevolent Institution, held last Tuesday.)

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); Cardiff Summer Show (two).

"The Garden."—Next week THE GARDEN will be largely devoted to Roses, and will contain illustrations showing beautiful ways of growing

Roses. There will be also a full report of the National Rose Society's exhibition to be held in the Temple Gardens on Wednesday next.

The Royal Gardeners' Orphan Fund.—We understand that the treasurer of this institution (Mr. N. N. Sherwood) has expressed his intention of giving the fund a special donation of £500.

University College, Reading.—The official opening of the garden of the horticultural department of University College, Reading, as described on page 14, was performed by the Right Hon. the Earl of Onslow, G.C.M.G., President of the Board of Agriculture and Fisheries, in perfect weather, in the presence of a numerous and distinguished company, on Midsummer Day. In honour of the occasion a garden party was given by Mr. and Mrs. Alfred Palmer. About four o'clock the company assembled in a large marquee to take part in the opening ceremony. After speeches by the chairman and the principal of the college, Lord Onslow declared the garden open, first making, in a long speech, sympathetic reference to its value and usefulness, and wishing it a successful career.

Meeting of early-flowering Chrysanthemum growers at Tamworth. For the fourth year in succession Mr. William Sydenham of Bolehill House, Tamworth, is inviting growers of the early-flowering Chrysanthemums to his trial of plants on Saturday, September 24 next. There is also to be a show, on the same day, of flowers cut from the open that have not been disbudded. Mr. Sydenham has spared neither pains nor expense in acquiring every known variety now in cultivation, and the display that may be anticipated on the date already mentioned will be very representative. The object of this trial of the early-flowering sorts is to demonstrate the value of the Chrysanthemum for the border. Much has been accomplished in recent years of which the flower-loving public know so little. The early-flowering Chrysanthemums are fast increasing in popularity, and many fine novelties appear each season. It is a matter for regret that in London so much apathy in popularising the early sorts is apparent, and that we have to look to a single enthusiastic cultivator in the Midlands to lead the way.—D. B. CRANE.

British Gardeners' Association.—The hon. secretary (*pro tem.*) of the British Gardeners' Association, Mr. W. Watson, Kew Road, Kew, asks us to state, on behalf of the committee of selection, that, owing to the pressure of correspondence and there being as yet no paid secretary to devote his whole time to the daily increasing work of the association, he hopes that intending members and others will excuse any delay there may be in answering their letters. Also that those interested in the association will render valuable assistance by applying for forms of application, &c., for distribution, or by sending him the names of qualified gardeners likely to join. Donations towards the £250 required for initial expenses will be welcomed, it being felt that, when the services of a paid secretary and offices are secured, the association will speedily be able to make its influence felt. The forms of application for membership are now ready and can be obtained by request.

Fremontia californica.—I see that Mr. Robinson in the "English Flower Garden" describes this shrub as scarcely hardy enough for the open air without protection. I have never protected it, and it certainly used to look unhappy after the spring frosts. But it is growing strongly on a south wall, has reached 15 feet, seems to intend to grow much higher, and has dozens of beautiful cup-shaped yellow flowers opening day by day.—E. R. BERNARD, *Salisbury*.

The National Potato Society.—Mr. J. W. Malden, a well-known Potato specialist of Ham, Surrey, has presented the National Potato Society with four dozen plants of Eldorado Potato for growth this year. Of these twelve have gone to Rothamstead, to be under the charge of the chairman, Mr. A. D. Hall; twelve to Mr. Redington of Leeds, Yorkshire; twelve to Mr. A. Dean,

Kingston, Surrey; and twelve to another county centre. All the plants were well rooted in 5-inch pots. Remembering the high prices asked for single plants, this present is a very valuable one. Mr. Malden is cultivating some 2,000 similar plants this season. With reference to the silver cup which it was last week mentioned Sir J. T. D. Llewelyn, president of the Potato Society, was offering for competition, the committee have agreed to make it an additional prize for the best competitive exhibit in the Crystal Palace show next October.

Rhododendron kamschaticum.—Flowering plants of this decidedly uncommon yet pretty little species of Rhododendron were noted among other rarities in the group contributed by Mr. G. Renthe at the recent Temple show. It is essentially a shrub for the rockwork, flowering as it does when less than a foot in height; indeed, that would appear to be about its limit in this respect, though it is somewhat spreading in growth. The leaves are hairy, ovate in shape, 1 inch or a little more in length, while the comparatively large flowers are about $1\frac{1}{2}$ inches across and of a deep rosy purple colour. In general appearance they suggest those of the Himalayan Rhododendron lepidotum. Occurring as it does throughout the northern regions of both hemispheres, *R. kamschaticum* has a wide geographical distribution, and, as might be expected, the plants and flowers show a certain amount of variation. The plants shown at the Temple were from the neighbourhood of Lake Baikal.—T.

Choisya ternata.—This is a valuable shrub where it thrives well; it evidently does so in the garden of Lord Alverstone at Winterfold, Cranleigh, as may be seen from the accompanying illustration. The bush represented is some 12 feet through, and an exceptionally fine specimen. In Surrey and Berkshire the *Choisya* does remarkably well; it appears to appreciate a warm and sheltered nook and fairly light, cool soil. In exposed and northern gardens this shrub requires protection, but the wealth of fragrant flowers and rich green leaves well repay any trouble taken to ensure its welfare.

Rose Clio.—What a splendid Rose this is for vigour of growth and freedom of flowering! It seems to do well whatever the season; for a town garden I know of no Rose that is more satisfactory. As a standard it grows well, and bears bunches of

flowers, all of which, although they are so numerous, seem to develop properly. The flesh pink blooms are borne on strong shoots, and, although they do admirably as vase flowers, it seems a pity to cut the shoot, as there are so many buds together in various stages of development, some so small that they would not open in water; the stalks of individual blooms, however, are so short as to render them of little use when cut. Unless therefore one has plenty of plants and can afford to cut the whole shoot, and so sacrifice some buds, this Rose must be admired in the garden alone. Etienne Levat as a bush does splendidly in the town garden also. It grows freely, and produces flowers of perfect form.—A. H. P.

Notes on Lilies.—Of numerous Lilies planted last year in a town garden it may be of interest to mention those which have done best this first season after planting, and of possible help to others. *L. davuricum grandiflorum*, as might have been expected, has grown well and flowered abundantly. Its rich orange red blooms have been a bright picture for two or three weeks. *L. Hansoni*, too, has done well. The two bulbs planted have both grown and both produced buds, although, unfortunately, those on one plant damped off when about half-developed. The others have opened, however, and the rich yellow, black spotted blooms are much admired. *Lilium elegans* (dwarf) have all grown, and some six out of twelve bulbs put in have produced their solitary flower, which, however, makes up in size and colouring what is lacking in quantity. *L. pyrenaicum* bloomed well, and of two bulbs of *L. pomponium* one has produced three blooms, while the other made growth but has not flowered. What a beautiful Lily this is with its deep scarlet turn-cap flowers and pretty small grey leaves! *L. chalconicum* began to grow, it got about 3 inches high and then died away. Several bulbs of this species did exactly the same, but I am told that in the first year after planting *L. chalconicum* often does this. I have no doubt that it will make its appearance in due course next year. *L. washing-tonianum* and *L. colchicum*, although they have not made vigorous growth, are showing buds. *L. pardalinum* and *L. superbum* both are coming into flower; several of the buds have damped off through no apparent cause, while others remain quite healthy. *L. Batemanniæ* and *L. canadense* made growths

about 1 foot high, but these are dying away without showing signs of flowering. *L. Brownii* has proved disappointing, some bulbs made growth and some did not, but now there are signs of none. This Lily seems to me to be very capricious; at least I have never been able to make it grow well in a town garden. It has flowered well one season and then disappeared altogether. *L. Martagon*, of course, has succeeded, so has *L. longiflorum*, *L. auratum*, and several varieties of *L. speciosum*, notably *L. a. melpomene*. But finest of all, so far as growth is concerned, is *L. tigrinum giganteum*, a clump of a dozen bulbs promises to make a grand display when in flower. All these Lilliums were planted this year, some in January and some in April, in a poor loamy soil with which leaf-soil and silver sand were intermixed.—H. P. A.

Primula obconica alba.—A group of this *Primula* in Messrs. Veitch's exhibit at the Temple show was greatly admired, for though we have had *P. obconica* for several years, I have never before met with so near an approach to a pure white. Most of the plants showed a certain tinge of colour, and whether any of them were absolutely pure could not be detected in the poor light that prevailed at the time of my visit. At all events with such a marked advance towards a white *Primula obconica*, an absolutely pure variety seems well within the bounds of possibility, and when that comes it will render this species even more popular than it is at the present time, for despite the fact that handling the plant causes irritation to many it is now very largely grown.—T.

Caterpillars on Gooseberry bushes.—Besides the various methods detailed by Mr. Wythes on page 426 to combat the larvæ of the Currant or Gooseberry moth, a good deal may be done towards lessening this pest by destroying all the perfect insects that can be met with, and if this is carried out before the eggs are deposited each female one that is killed represents a cluster of caterpillars the less. The detection and capture of the perfect insect is an easy matter, as it is very distinct in character, its general appearance being well expressed by the popular name of Maggie moth, for the white wings are marked with numerous blackish spots or blotches. Added to this its flight is very slow and hesitating, so that no great amount of exertion is necessary to capture a considerable number where they are at all plentiful.—T.

Leptospermum scoparium.—The *Leptospermums* form a very pretty class of free-flowering shrubs, all of which are natives of Australia. They need, except in especially favoured districts, the protection of a greenhouse, though in the extreme west they do well out of doors. The hardiest is, I think, that at the head of this note, which grows wild in New Zealand as well as in Australia. The dried leaves have before now been used as Tea, the plant itself being known as Captain Cook's Tea Tree. It forms a freely branched shrub, whose slender shoots are clothed with small narrow leaves, and just now are thickly studded with pinkish blossoms. Most of the species, through all of which runs a strong family likeness, have white blossoms. Potted in a mixture of peat, loam, and sand they give but little trouble, provided they are sheltered in a structure from which frost is just excluded in the winter. They belong to the Myrtle family, and if the leaves are crushed between the fingers they give off a fragrance. Throughout the summer months these *Leptospermums* may be placed out of doors.—T.

Aotus gracillima.—Among greenhouse plants of a shrubby character that flower during the spring months those belonging to the order Leguminosæ are strongly represented. Charming though this *Aotus* is when in flower, it cannot be called popular, for it is rarely met with in gardens, though kept in stock in most nurseries (and they are now very limited) where hard-wooded plants are still grown. It is a free-growing shrub that well merits the specific name of *gracillima*, as its shoots are long and slender, often reaching 3 feet or nearly so in length in a single season, if the plant has been cut back hard after flowering. These shoots are thickly clothed with small narrow leaves, from the axils of which flowers are freely



CHOISYA TERNATA IN LORD ALVERSTONE'S GARDEN AT WINTERFOLD, CRANLEIGH.

produced. They are yellow and crimson in colour, and so numerous that in a good specimen the long graceful shoots are transformed into golden wands. It is a native of Australia, whence it was introduced just sixty years ago, and its cultural requirements are much the same as those needed by the bulk of what are popularly known as New Holland plants, that is, a soil principally composed of good fibrous peat and sand, firm potting, careful attention to watering, and a greenhouse temperature. —H. P.

Laburnum Adami.—A great deal of interest centres round this plant, especially during flowering time, and as regularly as June comes round we hear of its freaks with an extremely varied collection of suggestions as to the cause of its variable character. This year the *Scotsman* published a series of letters (9th, 10th, and 11th ult.) about the flowering of this tree, and, judging from them, a number of large specimens are to be met with in Scotland. In some of these notes the recognised authentic history of its origin is given, while in others the guesses made at the cause of purple and yellow blossoms being borne on one and the same tree at the same time are remarkable. One gives the reason "that the colour is transmitted from a Copper Beech which grows near." This is either a joke or lamentable ignorance. The tree is extremely interesting, and has been much studied by scientific men both in the past and at present. Loudon describes *L. Adami* in his "Encyclopædia of Trees and Shrubs," and gives its origin as follows: "The purple *Laburnum* is a sport from a bud of *Cytisus purpureus* inserted in *C. (Laburnum) alpinus*, in 1825, by D. Adam, a nurseryman at Vitry, near Paris. The flowers are of a reddish purple, slightly tinged with buff, and are produced in pendant spikes 8 inches or more long. A few years after this sport originated it was found that it had a strong tendency to return to the original kinds, and that from one bud or graft branches were produced of the true *Cytisus purpureus*, of the true *Laburnum* (either the alpine or the common, according to which of these may have been chosen as the stock), with yellow flowers, and of the purple *Laburnum*." This character, which Loudon mentioned upwards of sixty years ago, holds good now, and the peculiar part is that one can never be certain that the same characters will be developed two years in succession. It is a common thing to get the yellow and purple *Laburnum*-shaped inflorescences on the one plant, but it is much rarer to have the foregoing, and in addition shoots of apparently typical *Cytisus purpureus*, with its tiny leaves and small purple blossoms. Two trees at Kew have borne three distinct sorts of growth, foliage, and flowers this year, while a third plant of the same age and planted at the same time has had one sort only. So far it appears as if good seeds will be borne by the branches bearing yellow flowers and by the branches of *Cytisus purpureus*, while the true *L. Adami* flowers do not appear to be setting seed, a few pods only have not dropped off, and these are not swelling. So far we are unaware as to whether seeds sown from *C. Adami* have produced plants having the same peculiarities as the parent. If anyone has tried it a record of the result would be of interest. Mr. W. Low, in writing about this plant, asks whether *C. purpureus* is hardy. It is, and could be obtained from some good nurseryman who makes a speciality of trees and shrubs.

THE FLOWER GARDEN.

PLAGIANTHUS LYALLI AT HOME.

ONCE read in THE GARDEN that this small tree was hardy in England as far north as London if grown against a south wall, but I am of opinion that it ought to prove hardy nearly everywhere in the Old Country. When I mention the conditions under which it grows in its native habitat I think many will agree with me. In the beginning of February last I made a trip across the Southern Alps from Lake Te Anan,

by way of McKinnon's Pass to Milford Sound, and during that journey I had an opportunity of seeing this tree thriving under very trying circumstances. Te Anan is a grand sheet of water, lying nearly 700 feet above sea level, and having an area of 130 square miles. Our starting point for our walk was the head of the lake, whither we proceeded by steamer from the foot, and, unfortunately, the day was wet, so the mountains surrounding the lake were hidden by clouds; but when we reached Glade House, the little hostelry on the Clinton River, the masses of cloud began to break, and the rocky summits of the mountains now and again peered through the enshrouding mists. As Glade House was crowded, we decided to move on to Mid Camp, a stopping-place some six miles up the narrow valley of the Clinton. Our way lay through Birch Forest, as the trees, which are Beeches, are misnamed by the colonists, chiefly *Fagus Menziesii*, with some *F. fusca* and an occasional *Totara* (*Podocarpus Hallii*); but along the banks of the river and in open glades, which ever and anon occurred where some brawling stream joined the river, or where in times long gone by some huge landslide had crashed into the bush from the mountain side, we first met the *Plagianthus Lyalli*.

It was past flowering, but the branches were hung with unripe seeds, and showed how profuse the flower had been. In due course we reached Mid Camp, where there are three rough huts erected by the Government—one for ladies, another for men, and a third which served the purposes of kitchen, storeroom, and dining-room, with a separate apartment for the guides' bunks. It had been showery all the way, and we were glad to get ourselves dried at a roaring wood fire. The huts stood on the edge of the forest in one of the glades mentioned, and we found growing all round them bushes of *Aristolelia fruticosa* in full fruit, some of them quite bright with their abundance of coral pink berries. Here we were glad to find a pair of wekas or Maori hens (*Ocydromus australis*), a familiar active brown rail that once was common all over the country, but now has been nearly exterminated by the stoats and weasels, foolishly turned out by the Government to cope with the rabbit pest. The *Aristolelia* mentioned must be hardy enough to grow at least in the south of England, and though from its small foliage it is hardly worth a place in the shrubbery, yet if it berried in cultivation anything like those we saw it would be a decided acquisition. Next day our way led through similar country till we reached Mintaro huts, where we dined. It was still showery, and had turned cold. The summits of the mountains visible through the openings in the bush were powdered with newly-fallen snow. We had now reached an elevation of some 2,000 feet, and were close to the foot of the pass.

We soon left the Birch trees behind, and entered a region where the *Plagianthus* reigned alone, and we were delighted to find it still in flower. The showers changed from rain to snow, and as we began the final ascent to the saddle it was snowing heavily. The *Plagianthus* trees continued some way up the mountain side, but the flowers presented a very forlorn appearance as they hung in dripping wreaths from their parent boughs. Indeed, as their whiteness rivalled that of the falling snow, they almost looked like snowflakes caught in some mysterious fashion, left hanging from the branches. As we ascended the snow became heavier, and before we reached the summit there was a depth of more than 6 inches of snow under foot. We were well pleased to

begin the descent from the highest point, which is 3,400 feet above sea level, and to hurry down the western side to the Beech huts, which have an altitude of only 840 feet, where we found a more genial atmosphere.

Next morning was fine, and we strolled along to the Sutherland Falls, the highest waterfall in the world, where a large stream comes leaping down the mountain side a sheer distance of 1,904 feet. The drenching spray descended like rain for a considerable distance from the foot of the fall, round which for a large area almost the only vegetation was coarse, wind-swept grass, which bent before the breeze caused by the falling waters. Our onward way led down the valley of the Arthur River to Milford Sound, a magnificent fiord surrounded by grand, awe-inspiring mountains, some bush clad, others, such as Mitre Peak, too steep to afford foothold to any but the most stunted bushes on its lower steeps, while Mount Pembroke carries a gleaming glacier in its bosom.

The track from Beech huts to Milford was of a character somewhat similar to that on the other side of the range, but the vegetation was richer. Ferns were more plentiful, from occasional groups of Tree Ferns to filmy Ferns enwreathing the tree stems, including the beautiful *Trichomanes reniforme*, while filling the interval were other species; and we passed banks covered with the lovely double Crape, or Prince of Wales' Feather Fern (*Todea superba*). This Fern we had seen on the other side of the pass as well. On our way back we had fine weather, and found the snow all gone from the pass. As we climbed the western slope, and got above the bush, we found the *Plagianthus* trees in full flower, and none the worse for the severe storm they had so recently passed through.

Now it must be remembered that the beginning of February here corresponds to the beginning of August in the Northern Hemisphere, and I think that any plant which will come scatheless through a heavy snow-storm in the beginning of August has some claims to be considered hardy. It appears to be most accommodating in its habits also, for though its natural habitat is the upper edge of the bush line, it occurs right down to sea level in the sounds, or fiords, where a few trees may be found overhanging the water, and numbers of young seedlings grow amongst the stones about the mouths of creeks. At the higher levels it is quite deciduous, while lower down it is all but an evergreen. When we left the *Plagianthus* groves below us, our track traversed a shrubby region, where the grey bushes of *Olearia moschata* were in full bloom.

This shrub should be as hardy as *I. Haastii*, which appears to be a favourite at home, and while its bunches of white Daisy flowers would have a more effective setting in foliage of a darker hue, the silvery sheen of its leaves makes it a distinct and pleasing bush even when not in flower. Here, too, were growing several *Veronicas*, both of the whipcord and leafy varieties, the only one I found in flower being *V. grandiflora*. I had met with both *V. Lyallii* and *V. Cataractæ* in the stony water-courses in the Clinton Valley. Above the scrub the mountain side was covered with *Celmisias* of several species, all past flowering, and the round, dark leaves of the *Ranunculus Lyallii*, from amidst which rose innumerable seed stems, so that one could picture what a glorious sight it must have been when the flowers were in bloom. All this had been hidden by the

snow when we were going, as well as many more lovely and interesting mountain plants growing between their larger neighbours. Amongst the latter was *Senecio Lyallii*, which was also past its best, though a few belated bunches of its pretty yellow flowers were still to be seen, and after a considerable search I found a plant of the white-flowered variety. *Wahlenbergia saxicola* still displayed a few of its pale blue bells, and *Gentiana pleurogynoides* was sending up its stems crowned with bunches of nearly opened white blossoms. As I was gathering plants I heard a noise like thunder, and looking upwards I saw a large avalanche which had broken away from the Jervois Glacier come crashing down the precipitous mountain-side like a mighty waterfall. From near the summit of the pass we were able to look down 2,500 feet to the Beech huts we had left in the morning, and which lay right below us, while Mount Hart and Balloon Peak towered into the clear sky above us. All along the track on the lower lands the soil and gravel thrown up in its formation were carpeted with low-growing plants. Here *Nertera depressa* was studded with its bright berries, there *Pratia angulosa* had still a few flowers, but its flowering season was nearly over, and many of its fruits were ripe. In open places *Acænas* were met with, and in one dampish spot the perfume told it was a creeping *Mentha* I was crushing under foot, and there were many others. For a plant lover it was a most enjoyable trip, nor were other interests lacking.

On the pass we saw a couple of Keas (*Nestor notabilis*), the destructive sheep-killing parrot, and while in the bush we occasionally saw their cousin, the Kaka (*Nestor meridionalis*), but, strange to say, only one or two parrakeets (*Platycercus Novæ Zealandiæ*) were seen, though only a few years ago these birds were very abundant. We saw tracts of the nocturnal parrot, the Kakapo (*Stringopos habroptilus*), and a few of our handsome wood pigeons (*Carcophaga Novæ Zealandiæ*). The tame bush robin (*Petroica albifrons*), once so numerous and friendly that if one sat down anywhere in the bush a robin would immediately come into view, and, gradually hopping nearer, would perhaps alight on the foot of the watcher, was very scarce, though as friendly as ever. The harsh cry of the long-tailed cuckoo (*Endynamis laitensis*) was the dominant bird note, but the warble of its foster parent, the yellow head or native canary (*Orthonyx ochrocephala*), was heard chiefly in the *Plagianthus* groves, and the cheep of the active tailless tiny little rifleman was constantly heard as they hurried and scurried among the branches and up the trunks of the trees. But I am wandering far from my subject, so shall say nothing more about the birds, nor shall I say anything about the scenery, except this, that I do not think there are many places in the world where the same combinations of sylvan loveliness and mountain grandeur are to be found. A globe-trotting English lady and gentleman whom we met on our way told us they were charmed with what they had seen, and had never beheld scenery they liked better. They were apparently entitled to speak with authority, as they had just come from Japan, where they had walked some



FOXGLOVES AND FERNS IN THE GARDEN OF DR. LIONEL BEALE, F.R.S., WEYBRIDGE.

200 miles through the most picturesque localities. They had also been in the Himalayas, and were familiar with Switzerland. Notwithstanding these digressions I think I have shown that *Plagianthus Lyallii* should be hardy in England. A. BATHGATE.

Dunedin, New Zealand.

A SURREY WOODLAND GARDEN.

POOR soil beneath giant specimens of Scotch Fir would hardly seem to be the most desirable spot to grow plants successfully, yet the garden at Weybridge of Dr. Lionel Beale, F.R.S., is thus situated, and of the many good things it contains Dr. Beale has on several occasions written in *THE GARDEN*. Last year an illustration was given of a splendid plant of *Chamaerops excelsa*, that has been growing out of doors there for many years.

One or two other good specimens of this Palm may also be seen there, as well as numerous Bamboos, an extensive collection of Ferns and evergreen shrubs, and such plants as Japanese Maples, Azaleas, Rhododendrons, Lilies of the Valley, Foxgloves, Camellias, Roses, Hellebores, Liliiums, *Leucojum*, and bulbous plants. As shown in the accompanying illustration, Ferns and Foxgloves luxuriate in this shady retreat. Dr. Beale and his gardener have made dells here and there, which are clothed with the foliage of Ferns, from whose shelter now peep the bells of Foxglove and *Campanula* or the yellow cups of Liliiums, while in early spring they are whitened with Snowdrops and Hellebores, or, later, are blue with Scillas. *Aristolochia Siphos* has clambered to the top of a large tree, clothing the trunk with its bold handsome foliage, Camellias thrive beneath the huge

bushes of Rhododendrons. The banks of the grassy walks that honeycomb this woodland garden are smothered with Ferns, and Saxifrages peep out at one from here and there; in short, there are features of interest and delight at almost every turn. Few would have made such an oasis of poor, dry, woodland ground as Dr. Beale has done, and the best of all, perhaps, is that this garden is as full of interest and has a certain beauty, too, in winter as in summer.

THE AURICULA—JULY.

THE plants are still resting, and although but little change may be perceptible, still active root-growing is going on, and should be encouraged. Water carefully and see that the soil does not become sodden. Admit as much air as possible to the cold frames, and protect from the sun by shading.

SEEDLINGS.

Every grower of the Auricula should strike out a line of his own and endeavour to produce seedlings. Some may do so simply for amusement and gratification, some from motives of gain, others from a spirit of rivalry, and some from a desire for fame in wishing to have their names registered as raisers of new varieties—all most commendable in their way; but the primary object of the enthusiastic cultivator should be not to rest content with the Auricula world as he found it, but take care on leaving it to add better flowers than provided by his predecessors. The first step in raising seedlings is to select strong vigorous young plants as seed bearers. The pips are prepared for seedlings by taking away from the flowers, at the earliest possible stage, the authers of each pip, and exposing the pistil ready to receive the

pollen, which is conveyed by a camel's-hair pencil from the variety selected for cross-fertilisation. A green edge should, of course, be crossed with another green edge, and the same with grey, white, and selfs. Some advocate sowing the seed as soon as ripe in July, others wait till the early spring, at the end of January or February. Whichever plan is adopted every care must be taken to prevent growth of moss, which will prevent the young seedlings coming through and cause great disappointment. As a prevention of this evil a solution of lime water should be used, made by fresh unslaked lime and water. As the water will not take up the lime in quantity injurious to plant life, it is not possible to make it too strong. Fill a 4½-inch or 4-inch pot with the soil ordinarily used for potting a collection of Auriculas. Add an inch or so more finely sifted for the seed-bed. After levelling and pressing down give a watering of the lime water above mentioned before sowing. Sow the seed evenly and thinly, and cover slightly with fine soil. Place in a well-shaded cold frame, cover each pot with a piece of glass, and water carefully when required. As soon as the young seedlings show their rough leaves prick off round the edge of small pots, and again as soon as the small seedlings touch, work up each seedling into a 3-inch pot, and shift again into larger pots as the growth progresses.

For the general collection, keep a sharp lookout against a small maggot which draws together with a slight cobweb the inner leaves and punctures the heart of the plant, and leads to destruction unless destroyed. Wage constant warfare against the aphid or green fly by fumigating whenever necessary with XL All vaporising liquid. W. SMITH.

NOTES ON HARDY PLANTS.

HARDY FLOWERS FOR CUTTING.

THE note in a recent issue as to the hardy flowers available for cutting from the middle until the end of May suggests a weekly continuation of the same, because I believe there are many gardeners who would be only too glad to welcome a goodly supply of outdoor flowers at all seasons of the year when it is possible to secure them. Aquilegias are at their best, and are among the flowers that may be cut with little regret for their loss. They are short-lived on the border, but stand very well in water. Pyrethrums are also at their best, and old-established clumps are furnishing a very fine display. Flowers from this source can be cut to any length up to 3 feet, and the recent rains have so well started the plants that back blooms are forming on many of the stems. German Irises are available in variety nearly 3 feet long, or for smaller vases the top blooms can be taken off, and the first flowers of the Spanish section were cut on June 1. On the same date the first flowers of the Iceland Poppies were ready from seed sown in February. It is worth noting in connexion with these that the seedlings are decidedly earlier than old plants remaining on borders from last year. Very good sprays of Lily of the Valley are still forthcoming from a north-west border, a site that also gives us late Spanish Irises and many other flowers equally useful. Roses on walls are at their best, and heavy cuttings are made of the old Gloire de Dijon, Safrano, Waltham Climber, and Homère. So far as material for large vases in the shape of flowering shrubs is concerned, there is no season of the year when there is a greater wealth of bloom than early in June, for, besides Rhododendrons and Azaleas, most of the deciduous flowering shrubs are now at their best. I do not think the great merit of the newer varieties of these are sufficiently recognised. Such things, for instance, as the large-flowered form of Philadelphus and the new Weigelas

are very fine. Also in evergreens a good word must be added for *Choisya ternata*, one of the loveliest shrubs in cultivation and a charming button-hole flower. I do not know how it will do on cold stiff land, but, given light warm soil, it should always have a place against a wall or in some sheltered corner. E. B. C.

DIANTHUS ATKINSONI.

THIS is one of the most brilliantly coloured of all the family, and very striking in the border or in pots in the early summer months. There is always some difficulty in securing compact bushes, as, owing to its profuse flowering, cuttings are not very freely produced. For this reason it is well to reserve a few plants for stock, not allowing them to flower. Where the plant has already flowered cut away the spikes forthwith, that cuttings may be secured as early as possible.

PRIMULA SIKKIMENSIS.

WHEN well grown this is one of the best of the genus, particularly of those coming in the summer months. It is essentially a moisture-loving species, and one also that, so far as gardeners are concerned, should be treated as though it were a biennial. The plant may also be grown in shady beds, where the soil is ever moist and cool, even if not wet. With plenty of moisture the plant becomes vigorous and produces a fine umbel of drooping yellow blossoms on stems 2 feet high. A group of two or three dozen plants is very pleasing in flower in the middle of June.

CAMPANULA PERSICIFOLIA CORONATA ALBA.

THIS useful border perennial is now very showy, the larger tufts producing several spikes of pure white blossoms. These latter are more attractive than those of the ordinary white form, because of the cup-and-saucer-like arrangement of the flowers. All the white forms of this group are especially good for the border or for cutting, and are always neat and attractive in habit. The large-flowered form *C. p. a. grandiflora* is particularly effective in a large group and most serviceable in pots. All the kinds are easily increased and well repay good cultivation.

THE ROSE GARDEN.

TWO YELLOW HYBRID TEAS.

HITHERTO some of the best golden-yellow Roses, both in the Teas and also the Hybrid Teas, have been sadly wanting in vigour. One especially grand variety was *Souvenir de Mme. Levet*, but, unfortunately, it is tender. I should say a fortune awaits the raiser who can produce a Rose of this colour with the growth, size, and freedom of *Caroline Testout*. The two varieties I desire specially to direct attention to in this note are *Friedrich Harms* and *Franz Deegen*. The former is of a colour much resembling *Souvenir de Mme. Levet* and *Goldquelle*, but it is apparently of a more robust constitution than either. I do not say it is so vigorous as one could desire, but it is an advance in the right direction. *Franz Deegen* I have not yet seen outdoors. Under glass it is much valued by florists; the pale yellow colour, with a deep golden-yellow centre, make it most useful for cutting. P.

ROSE GARDENIA.

ALTHOUGH one of the first of the hybrids obtained from *R. wichuraiana*, this beautiful variety is still one of the best. Just now upon a four year old plant there are some 300 or 400 buds, which, when developed, will be quite as large and of a similar tint of canary yellow to the *Tea Rose Mme. Chedane Guinoisseau*. These Roses require a deep root-run of good loam, and should be given a few tree-stumps to scramble over. They are full of healthy

vigour, the buds being set off by glistening leaves. A variety which resembles *Gardenia* is *Alberic Barbier*, but the buds are of a paler tint and the expanded flowers nearly white. No one should miss an opportunity of adding both these to their collection, and, if they have a few spare Briar stocks, insert a few buds on these with the tallest stems. They make perfect weeping trees, and are fitting companions to *Dorothy Perkins*, *Euphrosyne*, *Aglaia*, and such like. P.

ROSES AT KEW GARDENS.

ABOUT the end of June and early in July Rose growers would be well repaid by a journey to these famous gardens. Here one may see the various types used in the best ways. For instance, that charming, if somewhat too fleeting, *Rose Carmine Pillar* is in perfection in the dell garden, making a mass of its brilliant blossoms, with a background of tall Pines. Hard by is a belt of the *Dawson Rose* in its tender pink and profuse bloom. These, of course, will be over by the time named, but an inspection of the bank of *Crimson Rambler* and *Flora* would alone be worth a visit early this month. A special feature at Kew are the beds of such Roses as *Una*, *Electra*, *Morletti*, *Royal Scarlet*, and *Mrs. Anthony Waterer*. No one can form any idea of their beauty. This liberal massing of one kind could only be employed in large gardens or public parks, but the effect produced should not be allowed to pass unnoticed by all who can see them. Doubtless a modification of this bold bedding could be arrived at by a judicious mingling of sorts that are similar in growth and that would flower almost simultaneously. But the main point to aim at is perfect and unrestricted freedom for the growth. Nature here is almost entirely triumphant. The plants are planted, and after this, beyond cutting out old wood, they are allowed to grow as they like, with the result that we find perfect sheaves of blossom.

What a fine *Rose Una* is for this bold bedding, and I might suggest an edging of *Royal Scarlet*. *Morletti* was magnificent at the time of my visit. It is the only *Boursault* worth growing with the exception of *Calypso*, which I have only seen at Kew. It is a fine large flower of a paler tint than *Morletti*. Apparently we should call the latter *Mme. Sancy de Parabere* if priority of naming counts for anything. To obtain the best effects from this massing the Roses should flower somewhat at the same time, and before planting time I propose to arrange a list as a guide.

The gravel walk by the rock garden has some fine arches of Roses spanning it. These arches are some 12 feet high, 14 feet wide, and about 20 feet apart. A very wise arrangement is the mingling of *Clematis montana*, *Honeysuckles*, &c., to run up with the Roses. This provides a denser clothing of the iron supports, which, by the way, consist mainly of gas piping. Personally, I do not care for iron of any description as a Rose support, but apparently the authorities at Kew have found it answer well. On these arches will be found some of the choicest and best for the purpose. *Tea Rambler* promises to be a charming addition. I was surprised not to find *Dorothy Perkins* or *Waltham Rambler*. Surely every garden will soon have these two lovely Roses. With the advent of perpetual-flowering ramblers, which seem close upon us, arches of this description will be an enduring feature of the garden. I thought that a few old tree-stumps could have been introduced for supporting one or two of the specially beautiful *wichuraiana* Roses such as *Gardenia*, *Jersey Beauty*, *Alberic Barbier*, and *Ruby Queen*.

Another special feature at Kew is the pegging-down system. A bed of *Clio*, that grand flesh-white Hybrid Perpetual, will soon be a lovely picture. Each plant had two or three long shoots pegged down, and produced some thirty to forty trusses of flower. There was no sense of crowding, but the bed was an almost even surface of growth, and the effect when this bed is in full bloom will be very beautiful. Even that rigid-growing *Rose Her Majesty* was treated in the same manner, and the branches were studded with buds. I do not know that I should advocate this method

with Roses of the latter type, but with such free-blooming sorts as Clio it is a great advantage to obtain a mass of bloom upon fairly dwarf growths. To obtain without pegging the same amount of blossom from Roses such as Clio we should not only need to plant closer, but also be content with rather tall bushes. P.

CULTIVATION OF ALPINE PLANTS.

(Continued from page 448.)

RAISING ALPINES FROM SEED.

A FEW words may be in place here about raising alpine from seed; for constant succession is necessary, the duration of their life in cultivation being, for many obvious reasons, which need not be discussed here, far shorter than in their native home. Reproduction from seed, where seed can be obtained, ensures the healthiest and finest growth, and there is no better way of getting seed than in saving it yourself. In several cases the first hint I have had that a plant has ripened fertile seed has been the recognition of a seedling near the parent, and this experience has taught me always to look carefully for seed after the flowering of rare specimens. I need not say, therefore, that I disapprove of the practice of cutting off flower-heads as soon as they wither; in some cases the seed-head is nearly as ornamental as the flower, but I have before said that discretion must be used even in this, as seedlings of some things are troublesome from their number. When ripe seed is gathered I recommend its being sown at once. It is then more likely to come up quickly, and as all such plants as we grow on rockeries are better sown in pans, there is seldom difficulty in keeping small seedlings through the winter. The greatest enemy we have in the process is the growth of lichen, the worst being the Marchantia or Liverwort fungus, which completely chokes tender growth. A coating of finely sifted burnt earth on the surface, and a piece of flat glass laid over the pan, especially if no water is used for them unless it has been boiled, reduces this trouble to a minimum. But sowings of choice and rare seed should be carefully watched, and the fungus picked off at the first appearance. Many alpine seem never to make seed in cultivation, and must be reproduced by division or cuttings. The skill required to do this varies greatly with different subjects; where a shoot can seldom be found more than half an inch long, as in the case of two or three hybrid alpine Pinks, the striking needs delicate manipulation. Other things grow very slowly, though not long-lived, and a constant succession from cuttings must be ensured. Some of the terrestrial Orchids, such as Bee, and Fly, and Spider, excellent subjects for rockery, we must be contented to keep as long as they choose to live, as they seem never to increase in cultivation at all, though they may flower well year after year. But there are not a few plants which refuse to be tamed, and from the time they are planted in our gardens seem always to go from bad to worse, and are never presentable in appearance for two seasons together. Of these I may instance *Gentiana bavarica* and *Eritrichium nanum*, which I believe no skill has ever kept in cultivation without constant renewal, and which perhaps are never likely to repay the trouble of trying to keep them alive on an English rockery. In all alpine gardening there will be, even where equal skill is exerted,

different degrees of success, according to the surrounding conditions; and it must not be expected that the same soil and treatment which keep a hundred rare alpine in perfect health at Edinburgh will be equally fortunate at Kew.

FRAMES FOR ALPINES.

This paper would not be complete without saying something about the use of frames in alpine gardening. Where the area of rockery is considerable, a cold frame should be provided for keeping up the supply of plants for it—cuttings and seedlings—in pots. The best treatment of these plants in winter has been much discussed in gardening journals. I may say that I think all attempts to imitate natural conditions, such as snow and long rest, by unnatural means are mistakes. During warm winters mountain plants will grow, and must be allowed to grow, and to keep them unnaturally dark or dry when growing is fatal to their health. Even in severe frosts air must be given abundantly in the daytime, and the frames must not be muffled up. Stagnant air, whether damp or dry, is their worst enemy; but if the weather is warm enough to set them growing, they may easily die for want of moisture. I will not say more than this, for experience is the best guide, and everyone thinks he can manage his frames better than his neighbour, but of the use of frames for flowering alpine in pots I must add a few words. There are certain very early-flowering alpine upon which a mixture of admiration and lamentation is bestowed at the end of every winter. Their flowers are often beautiful in a treacherous fortnight at the beginning of February, and are suddenly destroyed by a return of winter in its severest form. I may mention, amongst others, *Saxifraga burseriana* and *santata* and their near relatives and hybrids, *Primula marginata* and *intermedia*, *Androsace carnea*, *Chamæjasme*, and *Laggeri*, several dwarf species of *Alyssum* and *Iberis*, and there are a good many more. Pots or pans containing these may be grouped together in an open sunny spot, and plunged in sand or coal-ashes in a rough frame made for them, so that the lights may be not more than 3 inches or 4 inches above the pots. These lights should be removed in the daytime when the weather is fine and air should be admitted, according to the temperature, at night. Such a sheet of elegant beauty, lasting, if well arranged, through February, March, and April, may be obtained in this way that I often wonder why amateurs attempt to flower early alpine in any other fashion. With me April is the earliest month in which I can expect to have anything gay on the open rockery without disappointment. I am obliged to disfigure the slopes with sheets of glass and handlights to preserve through winter at all *Omphalodes Luciliæ*, *Onosma tauricum*, *Androsace sarmentosa*, and others which cannot endure winter wet, and the real pleasure of the rockery begins when the frame alpine are waning. I recommend those masses of covered pots in early spring to all cultivators of alpine.

ALPINES ON WALLS.

I promised to speak of alpine on walls, and that shall end my say. A few years ago I was driving through Dorking, and I noticed a smooth and by no means ancient brick wall covered, above the reach of boys' hands, with *Erinus alpinus*. Rough stone walls I had often seen well clothed with alpine, but from that time I became aware that there is hardly any garden wall, of whatever material, of which the parts otherwise bare might not be made ornamental with flowers. I do not suggest that such things should supersede climbing Roses

and wall fruit, but how often we see bare walls on which nothing is grown at all! The capabilities of rough stone walls for growing mountain plants are very great. Falls of *Aubrietias* and *Iberis*, groups of *Saxifrages*, and similar subjects may make many a corner gay instead of bare. Some very pretty things I grow on walls which have defied all my attempts to cultivate them elsewhere. I may specify *Lychnis Lagasceæ*, a fragile evergreen plant of shrubby growth easily multiplied by seed, which alternate snows and thaws generally crush up, but in this way it continues to thrive, and is covered during early summer with crimson flowers.

I have now come to the end of my subject, and only add that I have made a careful selection of 150 or so alpine plants suited for English rockeries in a list given as an appendix, from which all coarse growers are excluded.

ROCK PLANTS SUITABLE FOR ENGLISH GARDENS.

<i>Acantholimon venustum</i>	<i>Hypericum repens</i>
<i>Achillea tomentosa</i>	" <i>nummularium</i>
" <i>Clavennæ</i>	<i>Iberis saxatilis</i>
" <i>argentea</i>	" <i>petrea</i>
" <i>umbellata</i>	" <i>Pruti</i>
" <i>rupestris</i>	" <i>tenoreana</i>
<i>Ethionema grandiflorum</i> and	" <i>rupestris</i> , &c.
" others	<i>Leontopodium</i>
<i>Alyssum serpyllifolium</i>	<i>Linaria alpina</i>
" <i>pyrenaicum</i>	" <i>anticearia</i>
<i>Androsace carnea</i>	" <i>hepaticifolia</i>
" <i>Laggeri</i>	<i>Linum alpinum</i>
" <i>lactea</i>	<i>Lithospermum Gastoni</i>
" <i>sarmentosa</i>	" <i>petreum</i>
" <i>villosa</i>	" <i>fruticosum</i>
" <i>lanuginosa</i>	<i>Lychnis Lagasceæ</i>
" <i>vitaliana</i>	" <i>alpina</i>
<i>Anemone alpina</i>	<i>Micromeria Piperella</i>
" <i>sulphurea</i>	<i>Myosotis rupicola</i>
" <i>narcissiflora</i>	<i>Omphalodes Luciliæ</i>
" <i>vernalis</i>	<i>Onosma tauricum</i>
<i>Anthemis Alzoon</i>	<i>Oxytropis Halleri</i> , &c.
<i>Anthyllis montana</i>	<i>Paronychia serpyllifolia</i>
<i>Aphyllanthes</i>	<i>Phlox stellaria</i>
<i>Aquilegia pyrenaica</i>	" <i>amœna</i>
<i>Arenaria purpurascens</i>	" <i>setacea</i> , &c.
" <i>grandiflora</i>	<i>Polygala Chamæbuxus</i>
" <i>balearica</i>	<i>Potentilla nitida</i>
" <i>tetraquetra</i>	<i>Pratia repens</i>
" <i>laricifolia</i>	<i>Primula Auricula</i>
<i>Arabis Androsace</i>	" <i>marginata</i>
" <i>Halleri</i>	" <i>viscosa</i> , &c.
<i>Arnebia echioides</i>	<i>Ranondia</i>
<i>Aster alpinus</i>	<i>Ranunculus montanus</i>
<i>Aubrieta</i>	" <i>hybridus</i>
<i>Bellis cerulescens</i>	" <i>Thora</i>
<i>Calandrinia umbellata</i>	" <i>parnassifolius</i>
<i>Campanula garganica</i>	" <i>pyreneus</i>
" <i>portenschlagiana</i>	" <i>amplexicaulis</i>
" <i>waldsteiniiana</i>	" <i>ruticofolius</i>
" <i>Raineri</i>	" <i>Segneri</i>
" <i>isophylla</i>	" <i>anemonioides</i>
<i>Cyananthus lobatus</i>	" <i>alpestris</i>
<i>Cyclamen</i>	<i>Rubus arcticus</i>
<i>Dianthus deltoides</i>	<i>Samolus repens</i>
" <i>alpinus</i>	<i>Saponaria ocymoides</i>
" <i>neglectus</i>	<i>Saxifraga burseriana</i>
" <i>caesius</i>	" <i>Cotyledon</i>
" <i>sylvestris</i>	" <i>diapsioides</i>
" <i>viscidus</i>	" <i>aretioides</i>
" <i>hybrids</i>	" <i>cochlearis</i>
<i>Draba</i>	" <i>longifolia</i>
<i>Dryas octopetala</i>	" <i>marginata</i>
" <i>Drummondii</i>	" <i>santata</i>
<i>Edraiauthus dalmaticus</i>	" <i>oppositifolia</i>
<i>Epilobium orbiculatum</i>	" <i>retuaa</i> , &c.
<i>Erinus alpinus</i>	<i>Scabiosa Parnassi</i>
<i>Erodium Reichardi</i>	<i>Sedum Ewersi</i>
" <i>petreum</i>	" <i>pulchellum</i>
" <i>macrodenum</i>	" <i>populifolium</i>
<i>Erythraea diffusa</i>	" <i>arborescens</i> , &c.
<i>Fritillaria</i> (dwarf kinds)	<i>Sempervivum</i> (many sorts)
<i>Geranium argenteum</i>	<i>Spiraea umbellata</i>
" <i>cinereum</i>	" <i>crispifolia</i>
" <i>subcaulescens</i>	<i>Thymus Serpyllum</i> (in many varieties), &c.
<i>Geum miniatum</i>	<i>Tunica Saxifraga</i>
<i>Globularia nana</i>	<i>Veronica</i> (several dwarf shrubs from New Zealand)
<i>Gypsophila cerastoides</i> rep-	" <i>reptans</i>
" <i>tans</i>	" <i>saxatilis</i> (in variety)
<i>Haberlea rhodopensis</i>	" <i>spicata</i> (true)
<i>Helianthemum</i>	" <i>hybrida</i>
<i>Hippocrepis comosa</i>	" <i>aphylla</i> , &c.
<i>Houstonia</i>	
<i>Hutchinsia alpina</i>	
<i>Hypericum Coris</i>	

Additional Shrubs.

<i>Cytisus Ardoini</i>	<i>Genista pilosa</i>
<i>Erica carnea</i>	<i>Margaritacarpus setosus</i>

Annuals.

<i>Grammathe gentianoidea</i>	<i>Imnopsidium acanthe</i>
	<i>Leptosiphon hybridus</i>

TREES AND SHRUBS.

ABUTILON VITIFOLIUM.

THE Vine-leaved Abutilon (*A. vitifolium*), with its large, cup-shaped, lilac-blue flowers and cordate leaves, which in the autumn assume a golden tint, is hardy in Ireland and the south of England, but should have protection from frost. It was introduced from Chili in 1837. The fact of its not being a fast grower, together with its doubtful hardiness, probably largely accounts for its restricted culture in English gardens. The accompanying illustration shows this Abutilon at its best. The Abutilon walk at Chaddlewood, the Devonshire residence of Mr. G. Soltan-Symons, is 200 yards long, and there are over 200 plants, which are from 6 feet to 15 feet in height. When in full bloom they are a beautiful sight. Mr. Soltan-Symons says that he has had Abutilons in the garden for a great many years, and he has never lost any from frost or snow.

CEANOTHUS DIVARICATUS.

BLUE-FLOWERED shrubs are not plentiful in gardens, and of the few that exist most are included in the genus *Ceanothus*. Unfortunately, most species of *Ceanothus* are rather tender, and to have them at their best in the neighbourhood of London they must be planted against a wall, and even then in very severe winters they are badly cut. Of the hardier sorts *C. divaricatus* makes by far the largest plant. In the open ground at Kew a bush 18 feet or so high, with the same diameter, is now—mid-June—in full flower and makes a distinct feature among other shrubs. It is a Californian plant, furnished with a large head of twiggy branches clothed with dark evergreen glossy leaves, which are oval in shape and $1\frac{1}{2}$ inches long. The flowers are small and blue, and arranged in dense axillary clusters. The blossoming period extends from the end of May until the end of June. When planting it is not advisable to give very rich soil, or strong rank wood will be formed, which is liable to injury from frost. Cuttings of half-ripe shoots root readily during summer if kept in a close case. W. D.

DIOSTEA JUNCEA.

THIS is a curious and rare hardy shrub, closely related to the scented Verbena (*Lippia citriodora*), *Lippia* being, in fact, one of its numerous synonyms. At Kew there are two large specimens growing in a shrubbery near the Filmy Fern house, and these two have been smothered in flowers for the last fortnight, and now (June 17) they look as if they will remain in good condition for at least another ten days. It is found wild in the Chilean and Argentine Andes at an elevation of

from 3,000 feet to 5,000 feet. At Kew it forms a large bush, 16 feet or 18 feet high, with a short trunk and a few strong main branches. The branches are clothed with numerous thin Broom-like shoots, which are semi-pendulous. The leaves vary from 1 inch to $1\frac{1}{2}$ inches in length, and are narrow, with serrated margins. The flowers are very small and white, with a lilac tinge. They are arranged in dense axillary and terminal spikes an inch or so long. The plant, both in and out of flower, has a very distinct appearance, and is worth extended cultivation. W. DALLIMORE.

RHODODENDRONS IN HYDE PARK.

THE annual display of standard Rhododendrons in Hyde Park from Mr. Anthony Waterer's extensive nursery at Knap Hill is this year a very beautiful one. It was at one time thought that these shrubs would only thrive in peat soil, and from a cultural point of view it may be well to put on record the fact that experience has shown otherwise, for it is now found that Rhododendrons and other American plants succeed in almost any soil that does not con-

fine shape; *Fastosum flore-pleno* bears immense trusses of double flowers, which are a beautiful mauve. That fine old sort *Lady Eleanor Cathcart*, pale rose, spotted chocolate, was well represented; so, too, were *Michael Waterer*, crimson, spotted, fine; *Mrs. John Walter*, light centre, edged pink; *Kate Waterer*, rose, yellow centre, very showy; *Mrs. Charles Leaf*, rose, light centre, beautiful and distinct. Quo.

CALYCANTHUS FLORIDUS.

(CAROLINA ALLSPICE.)

I HAVE never seen this plant flower so profusely or for so long a time as it has done this year, and though it is not so showy as some of our flowering shrubs, yet it deserves a place in the garden for its aromatic scent and the brilliant golden tint of the leaves in autumn. When fully grown it makes a large spreading bush, 8 feet to 10 feet high, and of about the same diameter. The branches are of a dull brown colour, the secondary branches growing nearly or quite at right angles to the main ones, giving the plant a curiously angular

appearance in the winter, after the fall of the leaves. The flowers are borne singly from nearly every node of the previous year's wood, and consist of three whorls of strap-shaped fleshy petals of a reddish brown colour. They appear throughout June, and are not very showy, but have a strong scent somewhat resembling that of *Magnolia fuscata* or *Kalosanthus coccinea*. The scent is most noticeable when the sun is shining, and is more pleasant at a few yards' distance than it is close at hand. The leaves are 2 inches to 3 inches long, broadly ovate, entire, pubescent beneath, and covered with short, prickly hairs on the upper surface. They turn to a bright golden-yellow colour in the autumn. One curious point about this plant is the fact that,

while the living wood when bruised has very little scent, the dead wood has a spicy, fragrant and very pleasant smell when crushed in the fingers. The plant is a native of the South United States, and can be grown in any garden soil provided it is not too stiff. It is easily propagated by layers.

Bagshot, Surrey.

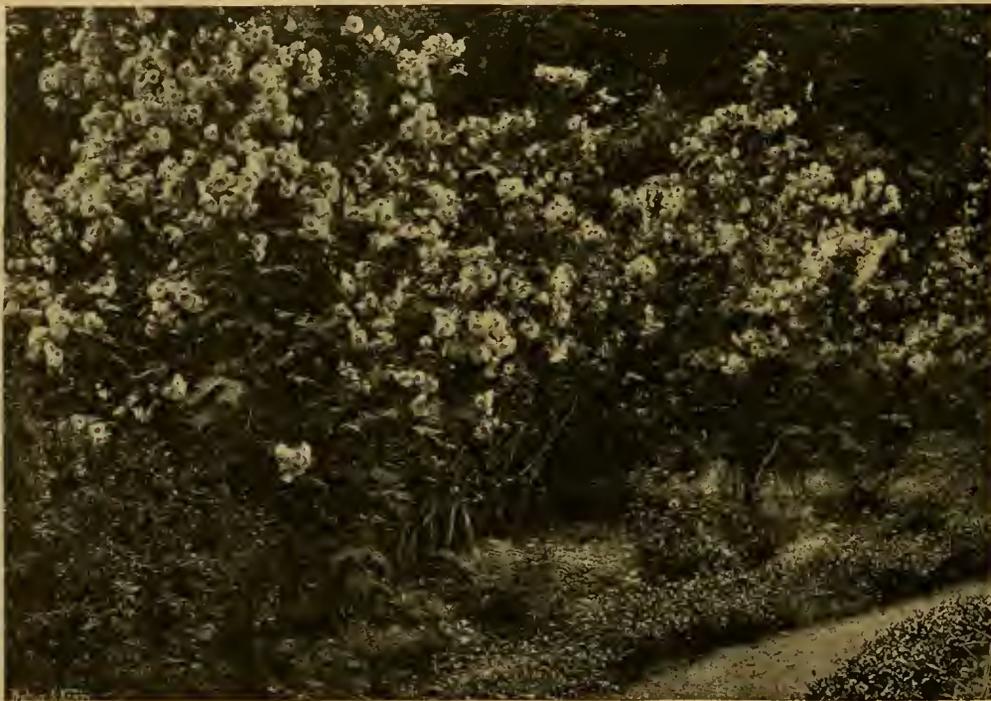
J. CLARK.

COLOURED PLATE.

PLATE 1264.

A GROUP OF IRISES.

SHOWN in the accompanying plate are four Irises, two of them wild Irises, the other two hybrids or crosses of man's making, all belonging to what is known as the *Juno* section of the genus. All the members of this section are bulbous, but they differ from other bulbous Irises, such as the *Spanish Iris* (*I. Xiphion*), in having "store" roots persistent after flowering,



A WALK OF ABUTILON VITIFOLIUM IN THE GARDEN OF MR. SOLTAU-SYMONS, CHADDLEWOOD.

in having several coats to the bulb instead of a few, and in bearing often more flowers than two, and in the foliage being, as a rule, broad, not linear. I think myself that it is a mistake to treat both these sections of bulbous Irises, taken together as a separate genus, under the name Xiphion, as is done by some; this will be found on experience to lead to trouble. It is better in my opinion to treat both sections as belonging to the genus Iris, and to call one section the Xiphion section, and the other, the one with which I am dealing now, the Juno section. The two natural wild Irises shown in the plate are *I. tubergeniana* and *I. willmottiana* both introduced from the central parts of Asia by Messrs. Tubergen. Both are very closely allied to *I. caucasica*, and, indeed, it is only by minor characters, such as points in the form of the outer petals, &c., that they can be distinguished from it. Some systematists might insist that they are only varieties of that species, but to the gardener they are quite distinct plants.

Both, like *I. caucasica*, are dwarf plants, with at most a short stem, and in this differ clearly from the allied group of *I. orchioides*. *I. tubergeniana* is yellow in colour, and *I. willmottiana* is blue, or, rather, white flaked and splashed with blue. Both flower earlier than *I. caucasica*; but this, though it may seem to the gardener at first sight an advantage, is really, so far as the reputation of the flowers themselves is concerned, a disadvantage. When they bloom out of doors, in the dull windy days of March, their delicate beauty is spoilt. I did not recognise what a delicately charming plant is *I. willmottiana* until I grew it in the calm repose of a cold greenhouse.

I. sind-pers and *I. purp-pers* are both crosses, due to the skill and care of Messrs. Tubergen. These names, of course, are very odious, but they are useful in telling at once the parentage. It is a pity that in this world the useful and the beautiful are so often disjoined.

I. purp-pers is a cross obtained by fertilising with the pollen of the typical *I. persica* the plant known as *I. persica* var. *purpurea*. I believe this to be the case, but I cannot lay my hands on my notes. Perhaps the typical *I. persica* was pollinated with the purple plant, in which case the name should be *I. pers-purp*. Purists would I suppose call this plant a cross, not a true hybrid, the latter term being confined to the result of mixing true species. This does not weigh very heavily on my mind, since this

purple form of *I. persica* seems to me quite as much (or as little) worthy of a specific name as several other Irises of the *persica* group, such as *I. Heldreichii* and others.

This *persica* cross or hybrid is a charming flower, the peculiar greenish white and almost black blue-purple of the typical *I. persica* being overcome by the red-purple of the other parent. It is free flowering, early flowering, and, though not absolutely robust, is more enduring than most forms of the *persica* group.

I. sind-pers is a cross between two plants, which, though both belonging to the Juno

than that of the mother, which it resembles in its blue colour, though the pollen of the *I. persica* has made itself felt in the orange crest and in some other points.

The great feature of the plant is its robust character and its splendid flowering powers. It opens at the same time, or even before the pollen plant, and some considerable time before its other parent; and even a few bulbs planted together produce a mass of beautiful blue sheen, which rejoices the eye and makes one believe that winter is really over, even when one has to wrap up in a thick coat in order to go out and look at it. It is to my mind one of the greatest treasures in the early spring garden.

M. FOSTER.

Ninewells, Shelford.

ORCHIDS.

LÆLIA PURPURATA
QUEEN ALEXANDRA.

ALTHOUGH this lovely new Orchid was not put before the Orchid committee of the Royal Horticultural Society at the Temple show for certificate, it is none the less worthy of special notice. It was in the group shown by Messrs. William Bull and Sons, Chelsea, and met with universal appreciation. The sepals, petals, and lip are pure white, and the throat yellow, an association that invariably goes to make a beautiful flower. It is the only white variety of *Lælia purpurata* that has yet flowered in this country, although thousands of the type are imported annually.

WORK FOR THE WEEK.

DIACRIUM BICORNUTUM (SYN. *EPIDENDRUM BICORNUTUM*).

This is perhaps the best of the Epidendrums, and now its needs are being better known it should become more popular. The flowering season is now passed, growth will soon be active, and the necessary potting should be accomplished forthwith, using a compost of two parts fibrous peat, two parts sphagnum, and one part leaf-soil, with a liberal sprinkling of coarse sand and small crocks. Rhizomes provide a splendid drainage, filling the receptacles to the depth of one-half. I give preference to ordinary pots for their culture. Plants with many old pseudo-bulbs attached should be radically treated if the life of the plant is to be prolonged and good results attained. When the new growths from the leading bulbs are about 1 inch high the latter should be cut away, retaining as many as possible of the roots attached. Pot each severed piece up separately; the parent plant need not be disturbed till new growth is in evidence. I consider this treatment necessary with



LÆLIA PURPURATA VAR. *QUEEN ALEXANDRA*. (Reduced one-half.)

A beautiful flower, with white sepals, petals, and lip, and yellow throat, shown by Messrs. William Bull and Sons at the Temple show.

group, are somewhat far apart within the group. *I. sindjarensis*, which bore the ovule, is an early-flowering Juno, with several fairly large more or less light blue flowers borne on a stem 1 foot or so in height. The well-known *I. persica* which supplied the pollen bears a single sessile flower. The result is intermediate between the two. The bulb bears three or even four flowers, but these are sessile, or nearly so. The flower is large, even larger

any plants that have more than four pseudo-bulbs. It greatly increases the stock, and instead of the plants deteriorating we find increased vigour, even after being allowed to flower and carry seed pods. A warm and shady corner in the stove Orchid house should be given, and when in active growth copious supplies of water are needful. At no season do the plants require a dry treatment; frequent overhead spraying are beneficial during the bright parts of the year. From one old plant in 1901 we now have eleven fine healthy pieces that give flowers of good quality, and I question if this treatment had not been given whether by this time we should have had a plant at all. When Orchids have got the reputation of always dying after being in this country a few years, it would be well to experiment and find out a new way of killing them, then perhaps we might find, if only by accident, the treatment they require when grown under our artificial conditions.

COCHLIODA NOEZLIANA.

This beautiful species is perhaps one of the most talked of Orchids at the present moment, now it has been proved to be a most valuable parent in hybridising, and it will without doubt be in great demand. Its culture is simple, and it is well worth growing. Many plants are now in flower with us, and others are growing freely and in a proper condition to be potted should they require it. Potting is best done when the new growths are well started, taking no notice of the time of year. A suitable compost consists of two parts fibrous peat, two parts sphagnum, and one part leaf-soil mixed together, with a good sprinkling of coarse sand and small crocks. Pot lightly, keeping the compost low enough to allow of a top-dressing of sphagnum. Ordinary pots with three holes for suspending are the most suitable receptacles, half-filling them with rhizomes. The roots have a very great liking for this mode of drainage, so in using pots more can be given than when the old-time shallow pans were used. Suspend them from the roof of the Odontoglossum house, spraying them freely overhead on bright days. Those newly potted will not require much direct watering for some time, providing they are well sprayed. Established, well-rooted plants that are growing freely, or those in flower or about to flower, will take copious supplies of water at this season.

W. P. BOUND.

Galton Park Gardens, Reigate.

THE INDOOR GARDEN.

BASKETS OF PLANTS IN THE CONSERVATORY.

A FEW well-furnished baskets suspended in the conservatory always produce a pleasing effect, and if the house is large and lofty the baskets should be of proportionate size. Strongly made wire baskets are the most suitable, and if plainly and neatly made they will answer every purpose without any superfluous ornamental work. Though certain plants are better adapted for this work than others, the list of those commonly employed might be considerably extended. A well-grown plant of *Plumbago capensis* has a pleasing effect when the branches are trained over the sides of the basket so as to completely envelop it, and if the plants are well furnished with branches before they are placed in position, the covering up of the wire-work may be effected at once. For filling large baskets several plants can be used in each to make an immediate effect. The white variety is nice for a change. For summer flowering the *Achimenes* in variety has a pretty effect, but a considerable number of bulbs will be required to fill a large basket. It is best to start the plants in pans in heat, and when they are 2 inches or 3 inches high place them in the basket in such a manner that not only the top, but the sides and bottom also may be furnished. The baskets, of course, will be lined with moss, and the bottom will be furnished with plants before much soil has been placed in the baskets, the sides being filled in and the basket

filled with soil concurrently. After the baskets are filled, if they could be suspended in a house rather warmer than the conservatory for a few weeks, the plant will do better. *Tropæolum* Ball of Fire is the best of this family for basket-work, and healthy young plants, several being used in each basket, soon become effective, and are of a lasting character. In a light house they will continue in good condition, with a little pinching and tying, all winter. Harrison's Musk I have found very useful in summer, and there are few yellow flowering plants in proportion to other colours. I have tried *Thunbergia slata*; it is a rather pretty creeper, and when strong plants are used so as to cover the basket at once it is not without merit. The only drawback is its liability to the attacks of red spider. I think the great charm of these baskets is to have somewhat frequent changes. When the baskets, filled with the same varieties of plants are constantly occupying the same positions they become monotonous. *Cobæa scandens variegata* has a charming effect suspended in a lofty house. I have used it in conjunction with *Fuchsias* and tuberous *Begonias*, the *Cobæa* forming the drapery. The Wax, or Hony Plant as it is sometimes termed (*Hoya carnososa*), is very pretty in a basket when well done. Of course, large-sized specimens must be used to give immediate effect, and this remark applies to nearly all basket plants. A very pretty effect may be made by planting Ivy-leaved *Geraniums*, two distinct colours, *Mme. Crousse*, soft rose, and *Joan of Arc*, double white; the former should be planted round the sides and trained over, and the double white used to form a substantial group in the centre. *Petunias* are nice for a change. I like the singles best for basket-work, and give the preference to those having striped or blotched flowers as furnishing more variety, though this is a matter of taste, and those having fancies may freely indulge them. *Lophospermum scandens* is a very pretty creeping plant for draping a large basket, its long drooping shoots when well furnished with blossoms producing a very pleasing effect. This is commonly treated as an annual, but it need not necessarily be so, as under glass it has a perennial character. To obtain early plants, an old specimen may be kept through the winter to yield cuttings in spring, which for basket-work I have found better than seedlings. For early spring perhaps one of the prettiest plants for a basket or a series of baskets is the *Cape Cowslip*, or *Lichenalia*. The baskets need not be replanted annually. The best time to plant is when the growth is about an inch long, so as to reach through the moss with which the bottom and sides of the basket are lined. To furnish a basket well a considerable number of bulbs will be required, but when once a stock has been got together they will be a joy for ever, as no plants are more easily managed. After flowering, the baskets of bulbs may be placed in a corner somewhere till the growth has ripened and then be transferred to the open air, as the passing showers will tend to keep the bulbs fresh—absolute dryness for a long period being, I think, injurious. *Epiphyllums* of various shades of colour are very effective basket plants for a warm conservatory in winter and early spring. To obtain a good bloom water should be withheld for a time after the growth is completed. An amateur friend the other day complained of his plants not blooming well, and on enquiry I found pretty well the same system of watering had been kept up all the year round, and consequently the growth did not ripen, and so flower-buds did not form. They flower best when starved just a little in the matter of potting. When a basket is well furnished nothing is required in the way of renewal for several years, but just before the flowers begin to open a little stimulant may with advantage be given in the water for a change. The creeping growth used for clothing the sides and bottom of the baskets may be selected to form a contrast with the plants used to fill in the centre. *Sedum carneum variegatum* is very pretty. For draping baskets of purple *Achimenes*, &c., *Tradescantia zebrina* and *T. vittata* are useful. *Panicum variegatum* is very nice for summer work, but requires a warm house to keep it effective in winter. The same may be said of *Cissus discolor*, which must be taken back to the stove when the

nights get cold. Tea Roses are not commonly grown in baskets, but they will succeed very well if the soil is pressed firmly about their roots, and with some of the growth tied over the sides of the basket the effect is very good. E. H.

CORRESPONDENCE.

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

DAISIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A note (page 404) concerning the uncommon occurrence, in a wild state, of the prolific Daisy is interesting, and is fully borne out by those who keep a look out for such variation from normal types. Daisies revel in retentive soils, and where this peculiar variety is most likely to be found and where it has been noticed to occur is in rich pasture land. Of the garden Daisies the prolific variety, the Hen and Chickens, is the only contrary member that has to be dealt with, for it is often difficult to get it well bloomed with flowers radiating from the parent head in the profusion and with the neatness shown in illustrations. It is, however, sometimes seen in fine condition, especially in good soils and damp situations. When it does indifferently a large proportion of the "chickens" do not leave the "wings," so to speak, of the "mother," and then the plant has little to recommend it in a garden. *Bellis perennis prolifera* has usually pink flowers, but there are rare varieties that depart from this colouring. The pretty *Aucuba-leaved Daisy* is seldom found outside gardens. One solitary tuft was noticed in the grass last spring not far from Edinburgh, and its surroundings did not point to the possibility of its having strayed from a garden. Sometimes the wild Daisy is destitute of ray florets, but this condition is not nearly so common with this plant as with the *May-weed* (*Matricaria inodora*). Among other variations met with the entirely red or pink-rayed Daisies are elegant and uncommon in a wild state. Of these single Daisies there are many varieties. Some are grown here, and massed together they produce a pretty effect. It is one with deep red petals that is known as the *Alpine Daisy*, and a similar variety is catalogued nowadays by several firms as *Bellis sylvestris*. The true *Bellis sylvestris* is blue-flowered—an enlarged form of our Daisy with minor alterations. I noticed it in the garden turf at Rome and elsewhere, its flower stems rising to nearly twice the height of those of *Bellis perennis*. It is a Southern European plant. *Bellis annua* is another southern plant, smaller than the common Daisy, but similar in appearance. Among the garden double Daisies there is now a fair variety of colouring. New whites are hardly wanted, but pleasant shades of pink and reds are always welcome. An attractive deep coloured Daisy is *Dresden China*, although its flowers are small; while *Alice*, raised by the Misses Hopkins at Knutsford, is a good example of a pink quilled. One of the great charms of Daisies is their natural way of rising here and there among the blades of grass. Sheets of *Daisy* turf are attractive in the wilder portions of the garden, however undesirable they may be for the lawn. The single and double garden Daisies look delightful when naturalised in the same way as their wild congener. Open grassy spaces in pleasure grounds, where the grass is kept fairly short, are suitable spots in which to sow seeds of these coloured varieties. One of the best ways is to sow the ground with a mixture of grass and double Daisy seed, as this prevents any crushing out of the garden Daisies ere they start to take good hold. Many composites are liable to be looked upon as Daisies. Of course the blue Daisy is a true Daisy, but there is little of it blue. Its name is *Bellis rotundifolia* var. *cerulescens*; its home, Algeria. Like other southern Daisies, it sometimes disappears during our winters, as do the tiny *Bellums* that do best on sunny slopes of the rock garden. They possess no particular merit. The alpine Daisies of some are found in *Aster alpinus*

and its varieties, while the genus *Erigeron* contains several Daisy-like flowers. Such are *Erigeron hyssopifolius* and others, while *Vittadenia australis* is the pretty Australian Daisy.

Edinburgh.

D. S. FISH.

THE NEWER PEACHES.

[TO THE EDITOR OF "THE GARDEN."]

SIR.—As pointed out in your issue of the 18th ult., it is a matter for wonder why the newer sorts of Peaches raised and distributed by Messrs. Rivers are so slow in becoming popular and more freely planted. Their Early Rivers' and Cardinal Nectarines have now become established everywhere. Their introduction marked such a gain in time that no one can wonder how eager was the desire to plant, and I cannot but think that if the merits of the newer Peaches were brought more prominently forward they would enjoy a wider patronage. Peach culture is conducted so much under glass, conducing to a limit rather than an extension of purchase, because, once established, they continue for so long a period in a profitable state. The American sorts, Waterloo and Alexander, have lost much of their former prestige through a propensity to drop the buds when only gently forced. Their loss is not so much felt, because Amsden June, a Peach similar in size, colour, and quality, is so much more dependable. If Duchess of York supersedes this in all-round quality, then certainly growers should be made fully acquainted with its merits, for the early Peach is distinctly a much desired fruit. Naturally the higher price reasonably expected for a new fruit would be a cause of waiting, but remembering the absurd prices paid for the newer Potatoes now in fashion there ought not to be any hesitation in paying a price for what will ultimately prove a better thing. The recognition paid them by the Royal Horticultural Society should be ample evidence of their worth, but, as "A. H. P." says, new Peaches appear to be much neglected. Messrs. Rivers stand almost alone in the effort to effect improvement in Peaches and Nectarines. There are, it must be admitted, many among standard varieties of both fruits that owe their origin to the skill and enterprise of Messrs. Rivers, fruits that it would seem almost impossible to supersede in their varied qualities. Are not the trade somewhat at fault in that these new Peaches find so few patrons? One may peruse many fruit catalogues without finding them by name, and it cannot be denied that a reminder at the right moment makes all the difference in the possible selection, and especially in the case of new or unfamiliar sorts. There are so many nurserymen who stock such a limited selection of these trees that some gardeners who might plant are debarred because of the difficulty of procuring them. In the early and late sections the introduction of new varieties would be the most valued, because in the main crops there are so many really excellent varieties. A gain in earliness, size, and colour are all points to be desired, and apparently aimed at by hybridists of the day, and, as "A. H. P." says, the new Peaches are deserving of trial.

W. S.

EXCESS OF HAULM IN PEAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR.—It is an experience of some this year that Peas are shorter than usual, and I note that Mr. Wythes records the fact in his notes on Peas (page 426) as affecting the dwarf varieties. My experience does not coincide. I find some sorts have grown higher. For instance, some that usually need but 2½ feet stakes, this time have gone 5 feet, and would have grown still more if the leaders had not been stopped. Eclipse, Express, Gradus, Thomas Laxton, Veitch's Earliest Round, and Fidler's Early Marrow all developed the same trait, the only exception being found in the dwarf and excellent Pea Excelsior. This, singularly enough, maintains its catalogued height, though occupying a portion of the border where others out-grow their stakes. It is not easy to understand these discrepancies. The moist state of the soil accounts no doubt for their upward tendency, and while there has been a fair proportion of sunny

days there have been no extremes of heat to hinder growth. It may be that the soil is more fully charged with chemical food, due to the abundant rains and soil moisture dating from the early period of 1903 and continuing ever since. Whatever the cause certainly Peas give abundant promise of a large yield, at any rate where slugs have been less persistent in their ravages. Peas suffer much from the damage by slugs, but when once above their reach progress was rapid. I am able to bear out what Mr. Wythes says of May Queen, both from personal experience and observation. I recently saw some wonderfully vigorous rows on the point of being ready for gathering; these, like our own, had much exceeded their usual height limit. We find a gain in time of maturity when comparisons are made between the stock sown in pots indoors and that grown from the first outside. There is always an anxious enquiry for the first dish of Peas, which stimulates the gardener to make what advance circumstances allow with glass accommodation. Even given these cultural aids there are gardens in which Peas can be obtained quicker with simple outdoor culture alone.

W. STRUGNELL.

NURSERY GARDENS.

MESSRS. V. N. GAUNTLETT,
REDRUTH.

ABOUT the middle of May, during a short visit to Cornwall, I took the opportunity of spending a few hours at Messrs. Gauntlett's most interesting nursery. The firm makes a speciality of hardy plants from Japan and elsewhere, and has imported many novelties, some of which are of high merit. In practically every good garden in the south-west plants from Messrs. Gauntlett's nursery are to be seen, but their main trade, which shows a yearly increase, is done with the midlands, where hardiness is essential. Tender things suited to Cornish gardens are also kept in stock, and, seeing that the nursery is not in a favoured part of the county and is much exposed to the wind, the healthy and vigorous appearance of these is somewhat remarkable; but even at Redruth severe frosts are exceptional. With very few exceptions all the subjects hereafter mentioned were growing unprotected in the open ground.

Of Andromedas all the known species were represented, including *A. cassinæfolia*, *A. speciosa pulverulenta*, and the fine *A. (Pieris) formosa*, of which the best specimen in the south-west, a splendid shrub 20 feet in height, is at Pentillie Castle. *Arbutus canariensis*, a very handsome tree, was in excellent health, while of Bamboos a very large collection was to be seen. Messrs. Gauntlett have been at pains to procure every known species. I was shown a large clump of *Bambusa palmata* that was planted out from a 6-inch pot five years ago, and now measures 23 feet through. Among the Brooms *Cytisus austriacus axillaris*, *C. scoparius variegatus*, and a dwarf form of *C. albus* were noticeable, while in the rock garden I saw two New Zealand Broom-like plants in good health, namely, *Carmichaelia australis* and *Notospartium Carmichaeliæ*. A very large-flowered Laburnum was *C. L. Vossii*. The fiercely-thorned, yellow-flowered *Casalpinia japonica*, a common shrub in Cornwall; *Carpenteria californica*, also in most gardens; *Callistemon coccineum*, usually wrongly entitled *Metrosideros*; the queen of the Camellias, *C. reticulata*; *Castanopsis chrysophylla*, with leaves having a golden reverse, and many *Cisti*, amongst which were *C. alyssoides*, *C. salvifolius*, and *C. rosmarinifolius*, the latter a small bush, with white flowers three-quarters of an inch in diameter, were inspected. A fine plant of the lovely Lily-of-the-Valley Tree (*Clethra arborea*), which flourishes in the open in many south-western gardens, attracted attention, as did *Citharexylum reticulatum* (the Fiddle Wood), of which the finest specimen that I know is in the gardens at Abbotsbury Castle; the very rare *Crossosoma californica*, *Banksia quercifolia*, and *Crinodendron Hookeri*

syn. Tricuspidaria hexapetala, hung with cherry-crimson blossoms.

Of Buddleias the handsome *B. Colvillei*, *B. japonica* (with pale blue flower racemes 2 feet in length), *B. insignis*, and *B. variabilis* were represented, while among the Thorns *Cratægus rivularis*, bearing greenish white flowers in the spring and large orange berries in the autumn, was distinct. Of the Dogwoods *Cornus florida* was noted, and of *Cotoneasters* *C. pannosum*, as were *Clerodendron foetidum*, *C. trichotomum*, *Coronilla Emerus* (5 feet by 6 feet), *Corokia buddleoides*, and *C. Cotoneaster*, *Desfontainea spinosa*, *Daphniphyllum glaucescens*, *Drimys Winteri*, many *Deutzias*, among which the dwarf *D. kalmiæflora* and *D. carminea* were very pretty; *Distylium racemosum*, a hardy evergreen from Japan, bearing small scarlet flowers along its shoots; and *Disanthus cercidifolius*, of the Witch Hazel family, also from Japan, whose red and orange autumnal colouring is marvellously beautiful, and which should be in every garden.

A fine young tree of the brilliant-flowered *Embothrium coccineum* had been bent down and the ends of its branchlets layered, numbers of healthy layers being present. Mr. Gauntlett informed me that he had discontinued raising seedlings, as these rarely gave satisfaction, being so apt to die off. Of *Elæagni* I was shown *E. Frederici*, with cream-coloured leaves, having a narrow green margin; *E. longipes*, *E. macrodonta*, and *E. umbellatus*. *Edwardia grandiflora* and *E. microphylla*, largely grown in Devon and Cornwall, were present, as were the handsome *Elæocarpus reticulatus* and *Eucriphia pinnatifolia*, grand in many Cornish gardens. *Euphorbia Sibthorpi* was in bloom, and had been in flower for two months. *Enkianthus formosus*, a shrub with flowers resembling an *Andromeda*, was said to be fine in its autumn colouring, while *Euonymus fimbriatus* is remarkable for the crimson tint of its young leaves, which at a little distance have the appearance of flowers, and *E. alatus* has curious four-sided twigs. The Canadian Mayflower (*Epigæa repens*) is grown in quantity. The rarely-seen Jalap Plant (*Exogonum purga*) is kept in stock, and about thirty species of *Eucalypti* are grown. The rare shrub *Feijoa sellowiana* was inspected, as were healthy specimens of the handsome *Fremontia californica*, a shrub that has the unfortunate habit of sometimes dying off suddenly when it attains a large size. The North American *Gordonia lasianthus*, which bears white flowers 4 inches across, was well represented, as were *Grevillea alpina*, *G. sulphurea*, and *G. rosmarinifolia*. The Witch Hazel family included *Hamamelis mollis*, *H. arborea*, *H. japonica*, and *H. zuccariniana*, and among the many *Hydrangeas* were *H. scandens*, *H. aspera*, and *H. radiata*. Some 10,000 plants of *Iris lævigata* (*Kæmpferi*) are grown and show robust health in dry ground. Among the *Hollies* was the Himalayan *Ilex dipyrrena*, and the pretty shrubs *Illicium religiosum* and *I. floridanum* were well grown. The dark crimson *Kalmia Pavardi* was striking, and *K. angustifolia* in full bloom very pretty. *Laurus regalis*, *L. camphora*, and *L. glandulosa*, valuable for their scented leaves; *Leptospermum*s, pretty flowering shrubs growing to a height of 20 feet in the south-west; and *Lomatia ferruginea*, a handsome Chilean shrub much like *Grevillea robusta* in foliage, which I have met with in some gardens, were noted, as were the *Magnolias*, which comprised *M. Campbelli*, *M. Lennéi*, *M. Fraseri*, *M. hypoleuca*, *M. macrophylla*, *M. glauca*, *M. parviflora*, and the commoner species.

Maclura aurantiaca (the Osage Orange), bearing fruit 5 inches in diameter, was seen, as was a bush of *Medicago arborea* 5 feet high in flower; *Mit-raria coccinea*, just showing its scarlet buds; *Myoporum lætum*, with leaves spotted with minute transparent dots; *M. parviflora*, good plants of the New Zealand Forget-me-not (*Myosotidium nobile*), and under glass the rare climber *Mutisia decurrens*, a plant very hard to procure. The nurseries contain a good collection of *Olearias*, including *O. nitida*, which was in flower at the time of my visit, bearing branching racemes of white blossoms half an inch in diameter, with leaves 3 inches by 2 inches, white on the reverse, a healthy little bush of *O. insignis* coming into flower. This is a very rare shrub which I have only met with in three



STEM OF AN OLD APPLE TREE THREE YEARS AFTER GRAFTING.

private gardens, and Mr. Gauntlett told me that he was at present unable to supply it. *Olearia Fosteri*, *O. macrodonta*, *O. nummularifolia*, *O. stellulata*, *O. furfuracea* syn. *ferruginea*, and *O. argophylla*, with Musk-scented leaves, more generally known as *Aster*. *Olea fragrantissima rubra* and *Osteomeles anthyllidifolia*, with fragrant white flowers and *Acacia*-like foliage, were noteworthy.

In the grounds was a fine tree of *Paulownia imperialis*, while of Tree Pæonies there was a collection of about 10,000 and a large assortment of herbaceous varieties. *Pernettyas* included the Mexican *P. ciliaris*. Philadelphia were well represented, *P. Falconeri*, bearing double waxy white flowers, being very uncommon. The charming *Philesia buxifolia*, with *Lapageria*-like blossoms, was noted, as was a large 10-foot bush of *Piptanthus nepalensis* in full flower. Of *Pittosporums* there was a representative collection; *Plagianthus Lyalli*, from New Zealand; *Polygonum Cooki*, far exceeding *P. sachalinense* in height, and attaining a stature of over 22 feet; *Pomaderris apetala*, bearing white, *Ceanothus*-like flowers; *Pterocarya caucasica*, the beautiful *Poinciana Gilliesi*, and *Pyrus thianshanica* were examined, as were the flowering Cherries, *Prunus pseudo-Cerasus Manoga* having large, double, pale flesh flowers turning to white, twice the size of those of *Watereri*, while *P. sinensis rosea plena* was very pretty. *Rhododendrons* were to be seen in quantity, the new

R. Gauntletti, a hybrid between *R. Aucklandi* and *R. ponticum*, being very fine and in full flower. The blossoms measured nearly 5 inches across, and I counted fourteen on one truss. The colour is pale pink, changing to white. Another new introduction was *R. nilagericum*, with pale yellow flowers. Other species included *R. Dalhousiae*, *R. Nuttalli*, *R. Aucklandi*, *R. Falconeri*, *R. dahuricum*, *R. fragrantissimum*, and numbers of seedling plants. Large specimens are kept in stock for those who require immediate effect. The new *Azalea Omurasaki*, from Japan, with double heliotrope flowers, was distinct and interesting. *Rosa wichuraiana* grafted on tall Briars had a pleasing effect, and the new *Rhus sinica* from the Himalayas, *Ribes speciosa*, and fine plants of *Romneya Coulteri* were viewed. Among *Senecios* were *S. Greyi*, *S. eleagnifolia*, *S. rotundifolia*, and *S. macrophylla*; and of the Lilacs *Syringa Emodi variegata* was remarkable. An enormous bush of *Solanum crispum* was in full flower. *Spiræas* included *S. coccinea*, from Japan, said to be deeper in colour than *Anthony Waterer*. *Stephanandra Tanakæ* is valuable on account of its stems turning bright crimson in the winter, and *Sterculia platanifolia*, from China, for its handsome foliage. The rare *Tetranthera californica*, an evergreen shrub, possesses fragrant leaves. There were large collections of *Veronicas* and *Viburnums*, the former including the salmon-pink *V. Gauntletti* and the crimson *V. Redruth*, and the latter *V. Awafuki*, *V. Sieboldi*, *V. sinense*, *V. macrocephalum*, and *V. plicatum*. Of Water Lilies fifty-three species and varieties are grown. The old though still uncommon *Xanthoxeris sorbifolia* was in evidence, and amongst conifers I noticed a seedling *Abies bracteata* from Southern California. S. W. F.

THE FRUIT GARDEN.

FRUIT CULTURE AT THE MANSE, BRACEBRIDGE, LINCOLN.

IT may be said that few men can have experienced the realisation of an ideal so completely in forming and planting a garden as has the Rev. Charles C. Ellison, of Bracebridge, near Lincoln. Mr. Ellison, a near neighbour and friend of Dean Hole when he was Vicar of Caunton, became early imbued with a deep love for gardening, and he began Rose culture some forty years ago. His subsequent acquaintance with the late Dr. Hogg, Pearson of Chilwell, and Speed of Chatsworth, led to a similarly intense interest in hardy fruit culture. Mr. Ellison commenced

in no half-hearted manner to prove for himself the merits of varieties of fruits and methods of culture as were advocated by both rosarians and fruit growers in the early sixties. So well thought out were his plans and so quick was he to see and prompt to seize an opportunity, and so constant his perseverance, that he lived to be complimented by Dean Hole as possessing the most beautiful little Rose garden in England, and Dr. Hogg often expressed his high appreciation of the experimental fruit garden. The Rose garden has been described as a little one, yet it contains 3,500 Rose trees, 400 of the newer varieties, particularly of the Hybrid Teas, having been recently planted. Nor is the fruit garden a large one, yet it contains 1,600 trees, mostly Apples, Pears, and Plums, though not in 250 varieties, as at the time when it was inspected by Dr. Hogg and won his high commendation. As a matter of fact, the area of the whole garden is small, some four acres altogether.

This little manse garden is entirely unconventional. It is a garden of many features and not a few surprises. Passing along the grassy paths, through avenues of fruit trees or banks of Roses, the visitor finds something to admire or discuss with his host and guide at almost every step. Like all really able men, he is always willing to listen to anyone who can give him a hint that may be helpful; but, if you advance a theory that is at all new, he will not take it as gospel at once, but put it to the test of practice, for, whilst being acutely logical, he is a stern utilitarian.

Mr. Ellison's experience in transforming an old ridge and furrow grass field of some forty years ago into the present delightful garden has on many occasions proved the truth of an expression of another great amateur gardener, who, on the occasion that the Right Hon. Joseph Chamberlain presided at a meeting of the Gardeners' Royal Benevolent Institution, described gardening, in his belief, as "the most unselfish of pleasures, for it is enjoyed the most in the largest company, and, unlike some other amusements to which our race is prone, it inspires no evil passions, inflicts no pain, and causes injury to no man, either in his health, his character, or in his estate." Mr. Ellison is clearly of the same belief, for one of his observations to a garden lover is conclusive, namely, "as no one knows better than yourself, there are a thousand pleasures in the possession of a beautiful garden, but the greatest pleasure of all is the privilege of sharing that pleasure with a host of flower-loving friends and neighbours."

How many thousands of persons have enjoyed this annual feast of Roses over a series of years it would be hard to say. It is not unusual for Mr. Ellison to issue over 1,000 invitations at a time, and meetings and conferences of various kinds are held in the garden. Gardeners have a day to themselves, a day of real enjoyment to them. Mr. Ellison has been for many years president of the Lincoln Gardeners' Association.

It is not often that one meets an amateur gardener in whom are combined the qualities of the true lover of gardening with intimate knowledge of its principles and its practice, and who cultivates not by deputy, but is a working gardener. Each tree or bush has been planted under Mr. Ellison's supervision, and the pruning and cultivation of every specimen, whether fruit tree or shrub, has been controlled by him. He has certainly helpers in the garden, men who have grown grey in his service. Advocates of the ultra-extension system of hardy fruit culture in small gardens would be horrified to see the Apple, Pear, and

Plum trees ; perfect specimens, many of them, 25 feet high and thirty or more years old, and, although planted closely together, are well furnished to the ground with fruit-bearing wood and carry abundant crops. They were delightful pictures, masses of beautiful flowers, when we saw them last spring. It would surprise many fruit-growers to find with how little ceremony Mr. Ellison cuts down a tree which does not give him satisfactory returns, and how quickly by grafting it is made to produce fruits of a sort more to be desired. We reproduce an illustration of a tree the third year after grafting, and also of one of the many avenues of fruit trees. Other objects of interest are the wall fruits, the pergolas, the beautiful dell and water garden surrounded with Roses, deciduous and evergreen trees, and planted with the choicest Water Lilies. Mr. Ellison is a lover of birds, and rather than destroy them because they give trouble when fruit is ripe bush fruits are protected by a structure of iron posts and rails, covered over with wire netting, high enough for an ordinary person to stand upright in. These erections will last a lifetime with care, and as they are portable they can be moved, if necessary, from one part of the garden to another. It is surprising they are not in more general use.

The following is a list of varieties of fruits that do best in the Manse garden and may be interesting to many :

Apples.—Warner's King, Bramley's Seedling, Duchess of Oldenburg, Lane's Prince Albert, Cox's Orange Pippin, Worcester Pearmain, Gascoyne's Scarlet, Newton Wonder, and Bismarck are very promising.

Peas.—Williams' Bon Chrétien, Marie Louise, Maréchal de la Cour, Conference, Clapp's Favourite, and Beurré de Capiaumont.

Plums.—Victoria, Prince Englebert, Czar, Monarch, Jefferson, and Bleeker's Scarlet.

GARDENING OF THE WEEK.

KITCHEN GARDEN.

PEAS.

ASOWING of these should be made at once for the latest supplies. In the northern counties it is almost useless sowing Peas after this date, unless we are favoured with better weather in the autumn than we have had these last few years. Peas sown on June 20 last year in this district failed to fill, and were of little use. It is not advisable to give a selection of sorts. Those that are found suitable to the district are the ones to grow. A variety named Ameer did well here last year from a sowing about the end of June. It is necessary to choose an open piece of ground for this sowing exposed to full sun. Rows of late Peas should not be sown together, but from 10 feet to 20 feet apart, to enable them to get full sun and plenty of air. The intervening spaces may be planted up with Cauliflower, Cabbage, or other crops. Some varieties fill and ripen more quickly than others, and these should be selected for this sowing. Many of the finer Marrow-fat Peas have come up rather thinly this year, and unless the ground is in good heart crops will be poor. Where ground is light and rain required a good watering should be afforded in the evenings, and then a mulching of decayed manures applied.

ENDIVE.

This vegetable is often of great service in the autumn when Lettuce becomes scarce. Seeds should be sown now in shallow drills 1 foot apart. Select a shady border that has been well manured. Thin out the plants to 6 inches apart. If sown early this vegetable is liable to run to seed. A second sowing should be made in July or early August for lifting into frames for winter use.

MULCHING.

A spell of dry weather seems to have set in with high, cold winds. Ground has a baked and dry appearance, and the growth of many crops is slow. In many gardens little time can be spared for watering, and mulching has to be resorted to. In very light and sandy soils it is a necessity. Beans and Peas are two crops that are greatly benefited if well mulched. Cauliflower should be carefully watched during dry weather or the crops may be lost. If possible let a thorough watering be first given, then a mulch of hotbed or Mushroom bed manure, and if these are not to be had the grass from the mowing machine may be used. This is also useful for placing between the lines of Carrots or any crops that require plenty of moisture at the roots.

HERBS.

This border should be inspected, and where the growth is poor it should be noted. This is a good time to make a planting of Mint. Young growths with roots may be pulled up and set out in a prepared bed. Tarragon may also be treated in this way. Chives if not much used should be cut over frequently to ensure a supply of young growths. Herbs sown in May may be thinned out where too thick, and where failure to germinate has occurred a sowing should be made in heat.

THOMAS HAY.

Hopetoun House Gardens, N.B.

FLOWER GARDEN.

The bedding out is now finished, and so far as possible the utmost neatness should prevail in all parts of the flower garden. The mowing should be kept well in hand. The flower beds should be carefully edged to keep a rigid outline, and the surface of the soil frequently hoed. Tuberous Begonias will be the better for a mulching. Trailing plants will require to be pegged down, as by so doing the allotted space will be more quickly covered and many plants will emit roots, and so grow and flower more freely. Standard Fuchsias and Heliotropes must have the strongest shoots pinched to ensure an evenly balanced head. These and other tall plants should be tied securely or a sudden squall will irretrievably ruin them.

CARPET BEDDING

will require constant attention in the shape of pinching and regulating and removing the flowers from the various Cotyledons (Echeverias), &c., which are used as foliage plants. The showery weather has been very favourable for bedding plants, which are rooting quickly and becoming well established. And while watering will not entail nearly so much labour as in some seasons, it is as well to bear in mind that such plants as Begonias, Lobelia cardinalis, Dahlias, &c., require plenty of moisture for their full development, and the borders along the base of the walls not only do not receive the full benefit of the showers, but also

have to support sufficient vegetation to cover the wall space as well as the border itself, and should have frequent applications of water.

THE ROCKERY.

This department also requires a deal of attention. The ripened foliage of many early flowering bulbs, &c., should be cleared away. Recently planted alpinas, &c., in pockets which are at all overhung by boulders or plants will require frequent waterings until they become established.

TREES AND SHRUBS.

Many deciduous trees and shrubs, with golden or variegated foliage, occasionally revert wholly and frequently in part to the original green-leaved type from which they sprang. The variegated Negundo is an illustration of the former reversion, and in such cases, for fear of causing an undesirable gap, it is often necessary to let the tree or shrub remain. But where the reversion is but slight the green branches should be rigorously suppressed. The golden Elder is also an offender in this respect. With this decorative shrub the young growths should be kept frequently pinched, and they will, as a result, assume a more brilliant colour and retain that colour until later in the autumn than otherwise would be the case. A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

FRUIT GARDEN.

PEACHES AND NECTARINES.

THE early forcing of the same trees of Peaches and Nectarines year after year is a severe tax upon them. When all the fruit is cleared the house should be ventilated to the fullest extent, and if possible the roof lights should be removed. Cut



FRUIT WALK IN THE MANSE GARDEN, BRACEBRIDGE, LINGS.

out all useless wood and any that has borne fruit and can be replaced by young shoots, endeavour to keep the foliage clean by daily syringings and occasional applications of quassia water. Do not allow the trees to become dry at the roots. Dryness at this season is often a cause of so many buds falling in the spring when the houses are closed for forcing. Give frequent applications of liquid manure to all trees that require it, and keep the laterals pinched. Houses where the fruit is ripe should be kept cool with plenty of air night and day, as by this means good colour and high flavour are secured. Go over the trees daily and gather carefully all fruits that are ready and place in a cool airy room.

SUCCESSION HOUSES.

In these houses the fruits are now swelling fast and must be well supplied with weak liquid manure and thoroughly syringed twice daily with soft water. Give plenty of air and full exposure to the sun to fruits approaching ripeness, closing the house for about two hours after syringing on bright afternoons. Afterwards admit air by the top and front ventilators for the night.

LATE HOUSES.

The fruit in these houses should now be well thinned, the shoots tied down, and the laterals kept pinched. The borders inside and out should be mulched with good stable manure and never allowed to become dry. Give free ventilation and syringe as for successions. Young trees should be carefully disbudded in the early stages of their growth. All gross shoots should be stopped to encourage an even flow of sap over the whole tree.

FIGS.

As soon as the second crop of fruits is gathered from the early trees thoroughly cleanse the latter and endeavour to keep the roots active by well watering and syringing the trees for some time to come. Later trees in full bearing will require liberal feeding.

TOMATOES.

Now is a good time to make a fresh planting of Tomatoes for autumn use. Seeds should also be sown in gentle heat for winter. Grow the plants in a light position to encourage firm and moderate growth. Pinch out all laterals as they appear and plant out in a light house facing south in a moderately rich compost of loam, wood ashes, and mortar rubble, with a sprinkling of bone-meal. Winter Beauty and Frogmore Selected are two excellent varieties, and free setting for winter use. *Impney Gardens, Droitwich.* F. JORDAN.

INDOOR GARDEN.

EPACRIS.

PLANTS that were cut back late after flowering and were given the accommodation of a close pit to encourage them to break are now making good progress, and in order to promote a sturdy and short-jointed growth gradually increase the admission of air until they will bear complete exposure, especially at night-time. Even those plants that have been repotted have got a good root-hold of new soil, and they also will bear with impunity the increased admission of air. The influence of a parching hot sun is not congenial to the satisfactory development of growth, so that a thin shade during the hottest part of the day should be given. Although syringing the plants once or twice daily will encourage the development of growth, it is never so firm and of such a satisfactory character as when it is developed with little or no syringing, but with keeping their surroundings cool and well moistened. From the moisture they absorb during the night when the lights are off the plants will derive the greatest benefit. The greatest possible care should be exercised in watering these plants, as an over, as well as an under, supply will soon work ruin.

ERICAS.

These require very similar treatment to the first-named, except that as they absorb less moisture greater care in applying water to their roots is necessary, whilst the greater density of growth and foliage demands that syringing be very lightly done.

CAMELLIAS.

Whether in pots or planted out, too much attention to syringing cannot be given whilst growth is being made, but immediately it is completed and the flower-buds begin to form syringe very lightly and only once a day; but sprinkle water freely about the paths, stages, and surroundings of the plants generally. Never allow the soil in the pots or in the borders to approach dryness or the result will be serious, and to produce that dark green colour in the foliage give their roots an occasional dose of soot water, together with liquid made from sheep manure.

RICHARDIA ETHIOPICA AND ELLIOTTIANA.

Whilst very excellent results can be obtained by growing these plants from year to year in pots, it is certainly advisable occasionally to take off singly a few of the weak offsets with a portion of root attached, and these plant out in well-prepared shallow trenches, in a similar way to Celery. This will tend to keep up the general health and vigour of the stock, whilst those plants that are grown for a year or two in pots will flower well with a confined root space, and will, in consequence, be useful for decorative work. Do this at once, and give the plants in either case a chance of becoming established before October. *Richardia elliottiana* produces a grander effect when cut and put into vases, and it will last longer in good condition. The plant is easily raised from seed, and good plants that will flower may be produced, with good culture, in two to three years. Fertilise one or more of the flowers and allow them to form seeds, which by October next will ripen and be ready for sowing to produce a stock of young plants. J. P. LEADBETTER.

READING UNIVERSITY COLLEGE GARDENS.

UNIVERSITY COLLEGE, Reading, has now become an important horticultural training centre, and on Friday of last week inaugurated its very fine practical gardens. What was formerly Messrs. Sutton and Sons' Portland Road Nursery, with other land adjoining kindly given by the chairman of the garden committee, Mr. Alfred Palmer, came into the possession of the college authorities some two years since, and a year ago they obtained the services of a thoroughly practical gardener in the person of Mr. Charles Foster, and also appointed a special garden committee, of which body such eminent horticulturists as Messrs. Martin John, Herbert and Leonard Sutton, J. Wright, V.M.H., and G. Stanton of Park Place, Henley, are members. The scientific director of the department is Mr. Frederick Keeble, M.A. Under this capable authority the gardens in every part now present an appearance that reflects the highest credit upon all concerned. The weather on the 24th ult. was very delightful when the Earl of Onslow, President of the Board of Agriculture, supported by many visitors, attended a garden party generously arranged by Mr. and Mrs. Alfred Palmer on their lawn adjoining the gardens. Having very closely inspected the gardens, Lord Onslow declared them open.

There are at present in the department seventeen garden students of both sexes, and of this number sixteen sat and obtained certificates at the recent Royal Horticultural Society's examination. These students have no intention to enter the unduly crowded home garden labour market. Two will become market fruit growers, two go to the Colonies, four enter florist's establishments, and in other ways disperse themselves satisfactorily. The gardens have the advantage of retaining all the glass houses formerly used by Messrs. Sutton, and in these great quantities of Tomatoes in pots are capitally grown and splendidly fruited. In some are Melons and Cucumbers in various stages of growth, all first-rate. Also Vines, fruit trees in pots, flowers of various descriptions, especially Roses, Carnations, and Begonias; indeed, there seems to be no useful phase of gardening wanting such as students may practice with advantage. A good quarter of tree and bush fruits has also been planted, and in the open vegetables are in really superb condition. Better Peas, Beans, Onions, Carrots, Lettuces, Cauliflowers, Potatoes, and other crops cannot be seen to the best gardens of the kingdom. All the spare produce is marketed. So great is the gardens' produce reputation locally that Reading traders readily take all that can be sold. In every department the practical work seen evidences fully the immense advantage of sound practical training over that which is merely theoretical or so-called scientific. That the visitors to the gardens on the 24th ult. doubtless fully realised. Theoretical and scientific instruction forms an important element in the students' work. That department is especially under Mr. Keeble's supervision, and is well done. Many illustrations of the nature of the scientific training given, especially in relation to insect and fungoid pests, influence of light on plant growth, the life history of plants, and other allied subjects were arranged in various houses, sheds, and tents. The weather was fairly fine during the day. Speeches of much interest to the large number of visitors assembled were made in a tent, and the aims of the collegiate gardens warmly commended. Everyone who saw the gardens must have left with the conviction that they did fair to make a striking impression on horticultural progress.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

DRILL HALL MEETING.

THE last meeting of the Royal Horticultural Society in the Drill Hall, Buckingham Gate, was held on Tuesday last. After the Holland House show on the 12th and 13th inst. the meetings will be held in the New Horticultural Hall in Vincent Square. Hardy flowers made a grand display on Tuesday, and indoor flowers, Orchids, and fruit were also well shown. The fruit committee gave awards of merit to two new Strawberries—one from Messrs. Laxton, the other from Messrs. James Veitch. In the afternoon M. Viviani Morel gave a lecture upon the "Hybridisation of Roses."

ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch (chairman), Messrs. James O'Brien, de B. Crawshaw, Norman C. Cookson, H. Ballantine, Walter Cobb, James Douglas, Jeremiah Colman, J. G. Fowler, W. A. Binley, F. A. Rehder, H. T. Pitt, A. A. McBean, F. W. Ashton, G. F. Moore, William Bolton, W. Boxall, J. Wilson Potter, H. A. Tracy, W. H. White, H. Little, and H. M. Pollett.

Messrs. Sander and Sons, St. Albans, exhibited some well-grown plants of *Laelio-Cattleyas*, as *L.-C. Martineti* var., *L.-C. Acis*, *L.-C. Aphrodite*, *L.-C. blechleyensis*, *L.-C. Duchesnei*, and *L.-C. canhamiana* var. *Acinetia Barkeri*, *Thunia nicholitziana*, and *Dendrobium superbum*, too, were well shown. *Silver Flora* medal.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited some beautiful *Laelio-Cattleyas*, among them were *L.-C. Aphrodite* alba, *L.-C. exoniensis*, *L.-C. wellsiana*, *L.-C. vesta*, *L.-C. Martineti*, *L.-C. eximia*, *L.-C. canhamiana*, *L.-C. c. alba*, *Cattleya Mossie* var. *Wagneri* and *Sobralia Veitchii*, both white, the former with orange-yellow throat, and the latter with lemon-yellow throat, were two other lovely flowers in Messrs. Veitch's group. *Silver Banksian* medal.

A most interesting collection of *Masdevallias* was exhibited by the Hon. Walter Rothschild, Tring Park, Tring (gardener, Mr. Dye). Some of them were showy, while others had inconspicuous flowers, but all were most interesting. There were numerous hybrids among them. *Dina venosa* with rosy pink blooms was also shown from Tring Gardens. Botanical certificates were given to *Cryptophoranthus Lehmannii* and *Saccolabium gracile*. *Silver Flora* medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, in their group of Orchids showed *Cattleya Mendelii*, *L.-C. canhamiana*, *L.-C. hippolyta*, *L. tenebrosa*, *Phalaenopsis leucorrhoda*, and *P. rimsteadiana* all well flowered. *C. Mendelii* had sixteen and *L.-C. canhamiana* seven flowers. Among others were *L.-C. arnoldiana*, *Oncidium leucophilum*, *Masdevallia melanoxantha*, *Lycaste Depelei*, and *Cattleya intermedia* alba. *Silver Banksian* medal.

M. Ch. Vuylsteke, Loochristi, Belgium, exhibited some very fine *Odontoglossums*—forms of *O. ardentissimum*, *O. harry-crispum* (the ground colour palest green), *O. meridicum* (white ground, heavily marked with rich chocolate-red), *O. concinnum*, and *O. bellatulum*.

Mrs. Ernest Hills, Red Leaf Gardens, Penshurst (gardener, Mr. George Ringham), was given a silver Banksian medal for a group of finely flowered *Miltonia vexillaria*. The plants were examples of the best culture.

Norman C. Cookson, Esq., Oakwood, Wylam-on-Tyne (gardener, Mr. Chapman), exhibited *Odontoglossum crispum* Britannia, a flower with broad rounded petals, each marked with a large blotch of purple-brown. Mr. Cookson also showed *Cypripedium lo × vexillarium*.

Lycaste tricolor (albino form) with greenish sepals, white petals and lip, was shown by J. Bradshaw, Esq., The Grange, Southgate, N. (gardener, Mr. Whitelegge).

C. H. Feiling, Esq., Southgate, N. (gardener, Mr. H. Stocking), exhibited *Scuticaria Dodgsoni*.

A cut raceme of *Odontoglossum coronarium* was shown by J. T. Bennett-Poë, Esq., Holmwood, Cheshunt (gardener, Mr. Downes).

F. Wellesley, Esq., Westfield, near Woking, showed *Cattleya Mossie* var., *L.-C. Fallas* Westfield var., and *L. boothiana × L.-C. gravesiana*.

NEW ORCHIDS.

Cattleya Mossie alba Tracy's variety.—A very beautiful flower, with pure white sepals and petals and lip and yellow throat. It is of splendid form, the petals large and wide, and the lip frilled. From Mr. H. A. Tracy, Twickenham. Award of merit.

Laelio-Cattleya dominiana Tring Park variety.—A large handsome flower, with rosy purple sepals and petals and unusually fine velvety purple lip. The throat is lighter and veined with yellow. From the Hon. Walter Rothschild, Tring Park, Tring (gardener, Mr. Dye). Award of merit.

FRUIT COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. Joseph Cheal, T. W. Bates, S. Mortimer, Alex. Dean, E. Beckett, Thomas Coomber, George Kelf, H. Markham, P. C. M. Veitch, Henry Parr, J. Willard, George Wythes, H. Somers Rivers, and A. H. Pearson.

Mr. T. Coomber, The Hendre Gardens, Monmouth, exhibited thirteen very good fruits of the Queen Pine-apple, the largest fruit having thirteen rows of pips. They were well coloured and in perfect condition. Mr. Coomber also showed excellent fruits of Royal Sovereign, The Laxton, and Leader Strawberries. *Silver-gilt Knightian* medal.

Messrs. Laxton Brothers, Bedford, exhibited some very fine Strawberries, which comprised several quite new varieties, as well as a splendid lot of The Laxton, the result of a cross between Royal Sovereign and Sir J. Paxton, a Strawberry that is famous for its good quality and heavy cropping, Laxton's Supreme (Dr. Hogg X Monarch) and Bedford Champion, the result of a cross between two seedlings derived from Scarlet Queen X John Ruskin and Noble X Sir J. Paxton respectively. This latter is a large, roundish fruit of good scarlet colour, and very handsome. Another variety,

Laxton's Reward, received an award of merit, and is described under "New Fruits."

A collection of Melons was exhibited from the Horticultural College, Swanley. Both green and white flesh varieties were shown, but none gained an award.

Fruits of the Papaw (Carica Papaya) were shown by Mr. James Epps, jun., Norfolk House, Beulah Hill, Upper Norwood. They were grown by him at Norwood. The fruits are said to have a delicious flavour. Those sent had been on the tree since October last. Cultural commendation.

Strawberry Leader was well shown by Messrs. Henry Cannell and Sons, Swanley. They also sent a box of Pea King Edward; the pods were gathered from plants raised from seed sown in the open the second week in March.

NEW FRUITS.

Strawberry Laxton's Reward.—A large fruit of cock's comb shape, crimson-scarlet in colour, the result of a cross between Royal Sovereign and British Queen. The flavour, while reminding one a good deal of that of Royal Sovereign, has been improved by the influence of British Queen, and what promises to be a grand garden Strawberry has resulted. From Messrs. Laxton Brothers, Bedford. Award of merit.

Strawberry The Alake.—This new variety is the result of a cross between Frogmore Late Pine and Veitch's Perfection. The fruits are deeply ribbed, and some are very large; the colour is dark scarlet. From the fruiting sprays shown this is evidently a very free-bearing Strawberry. From Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Drury, H. B. May, R. Dean, James Hudson, W. Howe, E. Hooper Pearson, J. Green, W. Bain, Amos Perry, Charles Jefferies, R. W. Wallace, Charles E. Pearson, R. C. Notcutt, William Cuthbertson, Charles E. Shea, W. P. Thomson, E. H. Jenkins, W. J. James, C. Blyck, George Paul, J. W. Barr, E. T. Cook, J. Jennings, and George Gordon.

The group of Streptocarpus from Lord Aldenham, Elstree (gardener, Mr. E. Beckett), numbering some 200 plants, was one of the leading features of the exhibition. The plants were, we need hardly say, splendidly grown and one mass of bloom. Some of the plants were quite specimens, and gave ample proof—if such were needed—of the value of these plants in general decoration. The group extended throughout the entire length of one table, and in the great variety embraced pink in many degrees, from the nearly or quite self colours to those with stripes in greater or lesser degree. Other shades of colour included pure white, and this with faint markings, puce, and shades of carmine and rose, varying shades of blue and violet, distinctly grouped from the royal purple or deep violet, and so on. In the more delicate shades flesh was remarked, and here again faint or pronounced lines of rose marked the throat of the blossoms. A very distinct type was a batch of white with dark violet-purple throat, which rendered the plants very conspicuous. It would be interesting, and to many instructive, to see these plants again at a later date, and thus demonstrate their greater value by profuse and continuous flowering. Silver-gilt Flora medal.

Another important group was that of Crotons from Mr. H. B. May, Edmonton. Some new ones are Alexandre Regalis, with red stems and petioles and gold and green leaves, very graceful; edmontoniensis, orange and crimson, highly promising as a table plant; Unique, a variety with twisted leafage, dark green and yellow; and Mrs. H. B. May, a most elegant kind, with slightly twisted leaves flecked with gold, and with golden midrib. Silver-gilt Banksian medal.

Sweet Williams and English Irises in variety came from Messrs. Veitch and Sons, Limited, Chelsea. In the former the Auricula-eyed strain was prominent, the trusses large, the eye pronounced and well defined. These are usually of a taller growth. In the mixed strain crimson, scarlet, salmon, and velvet crimson were all represented. The Irises, too, were a most representative lot, white, blue, violet, and other shades being freely shown. One kind named Rose Pertuosa is distinct by reason of the flakes of rose on a white ground. Silver Flora medal.

Messrs. John Peed and Sons, West Norwood, S.E., had a small group of hardy alpine and cut herbaceous flowers, with Roses and Begonias also in the cut state. Small rock plants in boxes were also shown, the Roses and Begonias arranged on either side.

A somewhat exceptional exhibit was that of early Gladiolus in pots from Messrs. R. and G. Cuthbert, Southgate, N., by whom a well-flowered group was staged. In this way the plants are much more effective and impart some idea of their garden value. Of the kinds exhibited we noted rosea maculata, with its very distinct blinch on the three lower segments; Blushing Bride, with rose-carmine blotch; Lord Grey, pink, the white blotch margined with rose; Insignis, rose-scarlet; and Peach Blossom, delicate flesh. Bronze Flora medal.

Mr. Charles Turner, Slough, had an interesting collection of cut Pinks. Laced and self forms were freely shown. We name Mr. Lakin, pure white; Her Majesty, white; Snowflake, also white; with Aurora, Boiard, Empress of India, Maggie, Bertha, and Mrs. Dark among the laced kind. Dianthus fragrans Little Gem is a small double-flowered kind, and Ladham's Pink is the best in this colour. Pheasant Eye is a dark-eyed variety with fringed petals.

Mr. M. Prichard, Christchurch, Hants, had many good things in a group of hardy cut flowers. We make mention of Atractia caroliola, with pink sepals and large showy heads; Peonias and Potentillas in capital form; Campanula Moorheimii; Lysimachia velutina, large yellow; Lilium Martagon album; Iris Kempferi in variety; I. Delavayi, a deep violet tone; I. cuprea, a bronzy hued flower; Rosa brunoniana, very beautiful, white and single; Coriaria japonica, very charming; Iris aurea, Crambe cordifolia, Day Lilies, hybrid Dianthus, Crinum capense, and others were included in this exhibit. Bronze Flora medal.

Messrs. Barr and Sons, Covent Garden, had a large and showy group of hardy flowers, in which Peonies, Delphiniums,

and English Irises were prominent features. The Irises and Peonies were excellent and in much variety. Very bold and telling, too, the tall spikes of the Larkspurs, of which Thomas Tilbrook, purple, with white eye, were conspicuous. Ixias in charming array, Hencheras in plenty, with elegant plumes, Eryngiums, and Lupinus were all good in this group. The arrangement, too, was excellent. Silver Banksian medal.

A mixed group of plants and flowers from Messrs. W. and J. Brown, Peterborough, contained Roses, Heliotropes, zonal Pelargoniums, and the showy Verbea Miss Willmott. Pelargonium Fire Dragon and The Countess, pink, are of the so-called Cactus type.

Messrs. J. Cheal and Sons, Crawley, had an interesting group of cut sprays of shrubs and trees in company with hardy flowers. We noted Philadelphus Lemoinei erecta, Philomis fruticosus, Robinia hispida, Potentilla fruticosa, with Veigelias, many forms of Oak, Hydrangea, Kalmia latifolia, very fine, Ozothamnus thyrsoides, Deutzias, and Olesaria macrodonta, a very distinct species, with small Aster-like flowers, were among the best.

A group of hybrid Begonias, single and double, and mostly drooping in habit, came from F. Lloyd, Esq., Coombe House, Croydon (Mr. E. Mill, gardener).

Messrs. J. Laing and Sons, Forest Hill, brought a small group of Gloxinias, generally of an excellent strain, Messrs. Ladhams, Shirley, near Southampton, contributing hardy flowers in the cut state. In this latter some excellent Pinks were seen. A. W. Pearce, white; Favourite, pink, dark base; Rosy Gem; B. Ladhams; Elaie, deep rose; and Florence, white, dark base, are all good. Scabiosa caucasica Perfection and Atractia caroliola were also noted.

Palms, Crotons, Alocasias, Caladiums, Dracaenas, Malmaison and other Carnations were contained in a group from Messrs. J. Laing and Sons, Forest Hill. Many Palms were in the background, and other things suited to general decoration. Silver Banksian medal.

Messrs. Paul and Son, The Old Nurseries, Cheshunt, had a very fine lot of garden Roses. Especially good and showy were Reine Olga de Wurtemberg, a fine pillar Rose; The Lion, crimson, single; Mme. Perney, apricot yellow; Macrantha, single; L'Idéale, very charming; Gustave Regis, with its long shapely yellow buds and blossoms; Rosa Mundi, single, striped; Papa Gontier, quite rich in colour; Frau Karl Druschki, excellent; W. A. Richardson; Mme. Ravary, very beautiful in form and colour; Una, a most beautiful single cream; Boule de Neige, an old double white; and Dawn, a lovely semi-double pink, like huge saucers, were among the best in an extremely fine representative lot. Silver Flora medal.

Some fine cut spikes of Delphiniums came from Messrs. G. Bunyard and Co., Maidstone, Kent, whose firm also contributed some capital Roses.

Border and Malmaison Carnations were from Messrs. Low and Co., Enfield.

The Delphiniums from Messrs. Kelway and Sons, Langport, made a rich display of colour. Bold in spike, rich and varied in the blue, violet, and azure tones that predominate, these are certainly among the best of June flowering plants. We noted Britannia, Athos, Lord Avebury, St. Paul, Sacramento, Norah Tison, light blue, white eye; Aurora, deep violet; Ceto, metallic shade; Macaulay, azure blue, &c. Gaillardias were also fine. Silver Banksian medal.

Messrs. W. Cuthush and Son, Highgate, set up a brilliant lot of Malmaison and other Carnations. Duchess of Westminster, pink; Robert Burns, red; Lady Hermeine, salmon; Trojan, white, very fine; Nell Gwynne, white Malmaison; and Maggie Hodgson, crimson Malmaison, are some of the best. Palms and Bamboos were employed to the background. The same firm had a fine group of hardy plants. Rhododendron hirsutum was finely in flower, and Inula Bigelovii is a fine yellow composite valuable for its early flowering. Silver-gilt Banksian medal.

A fine lot of Crotons, Aralias, Caladiums, and Palms were grouped in excellent fashion near the door, and with handsome specimens of Dracaena russelliana a fine display was made. The group which came from Mr. Russell of Richmond had for a margin Caladium argyrites. Silver Flora medal.

Rose Zephirin Drouot, a fine pillar or climbing variety, was well shown by Mr. Upton of the Guildford Hardy Plant Nursery.

Tufted and fancy Pansies were largely exhibited by Messrs. Dobbie and Co., Rothesay. We take Meteor, yellow; Mary Robertson, soft yellow; Effie, white centre, with broad violet margin; Archie Grant, rich violet; Mrs. McPhail, rose-mauve; Charles Jordan, blue; Admiral of the Blues, and Dr. Macfarlane of the Magpie type are some of the best. The Pansies, too, were of exceptional merit. Quite a number of Cactus Dahlias were shown, some two dozen vases being occupied by the flowers. Silver Flora medal.

The hardy flowers from Mr. Amos Perry, Winchmore Hill, were very fine. Gaillardias, Potentillas, double white Rockets, Geum Heldreichii, Perry's variety of Phlox canadensis, Gillebia trifoliata, Heucheras, Lilium pomponium, L. colchicum, L. Martagon, Philomis russelliana, Ostrowskia magnifica, Ixias, Morina longifolia, Gentiana lutea, Calochortus in variety, Campanula Merhami, and Iris aurea were all very fine. The hardy Water Lilies, too, were very beautiful and in great variety. Silver Flora medal.

Cupid Sweet Peas in some twenty-one varieties were shown by Messrs. Cannell and Sons, Swanley, the plants having been grown in the open air. As an exhibit of these pigny kinds it is much the best we have yet seen, and almost all shades of colour are represented in them. For example, Firefly, Beauty, flesh; Captain of the Blues, Mauve Queen, Her Majesty, rose; Alice Eckford, flesh; Chamberlain, a striped variety; and Primrose were some of those noted. Silver Banksian medal.

Many fine Malmaison Carnations in a large group were from Messrs. Low and Co., Enfield, while a large batch of Verbea Princess of Wales, a self purple kind, was staged by Messrs. Cuthush and Son.

Mr. R. C. Notcutt contributed a large group of hardy cut flowers, in which the English Irises were conspicuous. Other plants of note were Crinum capensis, Cephalaria tartarica,

yellow; Phlox Penge, one of the suffruticose group; and the large Papaver Lady Roscoe.

A very interesting lot of plants from Messrs. Veitch and Sons, Limited, Chelsea, included Jacobinia magnifica pohliana, Begonia Washington, crimson-scarlet; some fice Streptocarpus in white and blue; Kalanchoe flammea, Galax aphylla, and Lobelia tenuior, all excellent. Cornus Kousa, white, is a very distinct form. Silver Flora medal.

Messrs. W. Bull and Sons, Chelsea, showed English Irises in a very representative group that included the best sorts.

Messrs. Benjamin R. Cant and Sons, the Old Rose Gardens, Colchester, had Roses in excellent condition and in great variety. Very conspicuous was the new pillar Rose Maharajah, with brilliant crimson flowers almost velvety in texture. Not only is this large and very handsome, but the flowers, which are nearly single, are produced in great quantities; some of the blossoms were nearly 5 inches across. Other sorts were Bessie Brown, Edward Mawley, Frau Karl Druschki (very fine), Mildred Grant, Nance Christy (a seedling Hybrid Tea with fine pink flowers), the handsome Ben Cant, and many more. Silver-gilt Banksian medal.

Very fine was the exhibit of hardy flowers from Messrs. Wallace of Colchester. Ixias, very beautiful and in abundant variety; such Lilies as the white Martagon, many beautiful Irises, the ever-welcome Calochortus, Peonies, and fine Campanulas were among the more important in a capital lot. A distinct and showy Monsrup Iris is Lord Wolseley, a clear well-defined blue shade predominating. Silver-gilt Banksian medal.

AWARDS.

Philadelphus Lemoinei maculatus.—This is not only a good addition to flowering shrubs, it is a decided break in the genus. The flowers are white with a heavy purplish stain at the base, which renders the plant very conspicuous. The flowers are produced in dense columnar spikes. A very showy and striking plant. Exhibited by Sir Trevor Lawrence, Dorking (Mr. Bain, gardener), and by Mr. M. Prichard, Christchurch, Hants. First-class certificate.

Delphinium Normanhurst.—A very handsome variety with metallic and azure-blue flowers, which the large white centre renders highly attractive. The individual flowers are very large, and the entire spike well filled and handsome in the extreme. From Messrs. Kelway and Son, Langport. Award of merit.

Carnation Joann.—A border variety of good size, and of a pleasing shade of soft creamy yellow. Exhibited by Sydney Morris, Esq., Wretham Hall, Thetford, Norfolk. Award of merit.

Delphinium Mrs. J. Bradshaw.—A distinct type with hooded flowers, that would suggest a possible parentage with D. cashmerianum. The variety, however, is said to be a seedling from King of Delphiniums. The flowers are of good size, pale blue, and borne on extended pedicels, which gives the variety a welcome distinctness of character. From Mr. J. Bradshaw, The Grange, Southgate, N. Award of merit.

Pimpinella magna rosea.—A pretty variety of a very old umbelliferous plant, that will be welcome in the cut state or in the border. The flowers are of pinkish rose, small individually, and freely produced for a long period. From Mr. M. Prichard, Christchurch, Hants. Award of merit.

Croton Mrs. H. B. May.—A neat and pretty variety, the long, linear, drooping leaves slightly twisted and freckled with gold, a distinct line of the same colour extending down the centre of each leaf. A most useful type for table decoration. From Mr. H. B. May, Edmonton. Award of merit.

An award of merit was also granted to the strain of Cupid Sweet Peas exhibited by Messrs. Cannell and Sons, Swanley.

KINGSTON DISTRICT GARDENERS' SOCIETY.

The first ordinary meeting of this newly-formed Mutual Improvement Society was held in the Kingston Technical Institute on the evening of the 16th ult. Councillor T. Lyne, chairman of the Borough Education Committee and hon. sec. to the Front Flower Gardens Committee, presided. There was a good attendance of members. Mr. E. H. Jenkins, F.R.H.S., of Hampton Hill, was unanimously elected president, and Mr. F. G. Shipway, F.R.H.S., an amateur gardener of Kingston, was made vice-president. Mr. A. Dean is chairman of the committee, and Mr. J. T. Blencowe of Eastcott Gardens, Kingston Hill, secretary. Mr. Dean read a letter from Leopold de Rothschild, Esq., granting permission for the members to visit his gardens at Guooversary Park and House about August 11, which was gratefully acknowledged and will be largely availed of. Mr. Jenkins, who had before him a large collection of hardy flowers, kindly sent by Messrs. Barr and Sons, Long Ditton, and Messrs. W. Cuthush and Sons, Highgate, then had a pleasant chat about the various examples staged, which greatly interested his audience and enabled his profound knowledge of hardy plants to be admirably evidenced. Mr. A. Dean read a paper on "The Gardening Art," which also was listened to with much interest. The actual work of the society will commence in October next, when it is hoped that a room in the new Borough Museum may be at the disposal of the members.

SCOTTISH PANSY AND VIOLA ASSOCIATION.

The first monthly meeting was held in the Religious Institution Rooms, Buchanan Street, Glasgow, on the 22nd ult. for the purpose of awarding certificates to such new Pansies and Violas as might be deemed worthy. There was a good attendance, and many interesting varieties passed before the committees. The awards were as follows:—Fancy Pansies: First-class certificate to Mrs. Q. MacFadyean, yellow edged (Dobbie and Co.). Certificates of merit to Jessie L. Arbuckle, white edged (Kay); Provost Thomson, bronze colour (Kay); Mrs. W. Sinclair, lemon edged (Dobbie and Co.); and Mary B. Wallace, yellow edged (Dobbie and Co.). Show Pansies: Certificates of merit to Provost Thomson, dark self (Kay); and James Stirling, primrose self (Dobbie and Co.). Violas: Certificates of merit to Effie, an improved Butterfly (Dobbie and Co.); and Criffie Smith, in the way of Dr. MacFarlane (Dobbie and Co.). The next meeting will be held on the 13th inst.

RICHMOND HORTICULTURAL SHOW.

THE thirtieth annual flower show of the Richmond Horticultural Society was held on Wednesday last in the Old Deer Park, and was favoured with delightful weather. Competition was keener than has been the case for some years. The groups of plants and Roses were the best features. Vegetables, too, were well shown. Many special prizes were given by local supporters of the society for a great variety of exhibits.

PLANTS.

For a semi-circular group of plants, Mr. James Lock, Otlands Lodge Gardens, Weybridge, was first with a bright display, in which plants of graceful habit were largely used; second, Mr. H. E. Fordham, Twickenham, with a very pretty arrangement; third, Mr. William Vause, Leamington.

For a smaller group, Sir Frederick Wigan, Bart., East Sheen (gardener, Mr. Want), was first with a very attractive display; second, Mr. Hicks, gardener to C. M. Bartlett, Esq., East Sheen; third, Mr. William Vause, Leamington. Mr. Want took the first prize for specimen Ferns. Mr. W. Vause, Mr. W. A. Cook, and Mr. Want were first, second, and third respectively for specimen Palms. Those from Mr. Vause were very good plants.

Out of doors Mr. L. R. Russell and Messrs. W. Fromow and Sons, Chiswick, displayed hardy shrubs.

ROSES.

Forty-eight Roses, distinct, three blooms of each: First prize, with Gunnersbury Challenge Cup, Messrs. R. Harkness and Co., Hitchin, with a display of uniformly good blooms. Duchess of Albany, Kaiserin Auguste Victoria, Maman Cochet, Frau Karl Druschki, Lady Fitzwilliam, and Mrs. John Laing were the best. Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, were second, and their exhibit also contained many fine blooms. Bessie Brown, White Lady, Mrs. Mawley, and Frau Karl Druschki were very good. Messrs. D. Prior and Son, Colchester, were third. Mrs. W. J. Grant being very fine. Messrs. Frank Cant and Co., Braiswick Nursery, Colchester, were fourth, Lady Roberts being conspicuous on their stand. There was one more exhibitor.

Twenty-four Roses, distinct: First, Messrs. D. Prior and Son, Colchester, Frau Karl Druschki and Mildred Grant being their finest blooms; second, Messrs. Paul and Son, Cheshunt, with Mrs. John Laing and Frau Karl Druschki as the best blooms; third, Mr. George Mount, Canterbury. There were several other exhibitors.

Twelve Roses, distinct, three blooms of each: First, Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, with some excellent blooms, notably of Ulrich Brunner and Mildred Grant; second, Messrs. D. Prior and Son, Colchester; third, Mr. George Mount, Canterbury.

Twelve Hybrid Perpetual Roses (one variety): First, Messrs. Harkness and Co., Hitchin, with very fine Mrs. John Laing; second, Messrs. B. R. Cant and Sons, Colchester, with good Frau Karl Druschki; third, Messrs. D. Prior and Son, Colchester, with Mrs. John Laing.

Twelve Tea Roses (one variety): First, Messrs. Frank Cant and Co., Braiswick Nursery, Colchester, with White Maman Cochet; second, Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, with Mrs. E. Mawley; third, Messrs. D. Prior and Son, with the same variety.

Twenty-four Roses, distinct (amateurs): First, Rev. J. H. Pemberton, Havering-atte-Bower—Mrs. Sharman Crawford, Marquise Litta, Maman Cochet, and Mrs. John Laing were among the best of a good lot; second, W. C. Romaine, Esq., Old Windsor (gardener, Mr. Guttridge), with Mildred Grant, Mrs. J. Wilson, and G. Harkness as the best blooms; third, Mrs. Salem Cross, Cowley, Uxbridge.

Twelve Roses, distinct (amateurs): First, Rev. J. H. Pemberton, with splendid Bessie Brown, Mildred Grant, Frau Karl Druschki, and others good; second, G. Moules, Esq., Bedford Road, Hitchin, with very good blooms of Frau Karl Druschki, White Maman Cochet, and others; third, F. Wellesley, Esq., Westfield, Woking (gardener, Mr. W. Hopkins).

Twelve Roses (district exhibitors only): First, Miss Biddulph, Petersham (gardener, Mr. A. Dean); second, Mr. C. Want, Clare Lawn Gardens; third, J. B. Hilditch, Esq., Richmond (gardener, Mr. Meaton).

Mr. James Lock, Otlands Lodge Gardens, Weybridge, was first for dinner-table decorations, using Orchids; Miss Cole, Feltham, with salmon-pink Carnations, was second; and Mrs. Salem Cross, Cowley, third, with Roses.

Miss Cole was first in a similar class (lady amateurs only) with a charming decoration of white Shirley Poppies and deep rose Sweet Peas.

Messrs. Perkins and Sons, Coventry, were first for a basket of Roses, Miss Cole second, and Mrs. A. Allum, Petersham, third.

Sweet Peas were well shown, H. Compton, Esq., Eastcott, Kingston Hill (gardener, Mr. W. Blencowe), being first for six distinct varieties.

FRUIT AND VEGETABLES.

Collection of fruit: First, Mr. Justice Swinfen Esdy, Otlands Lodge, Weybridge (gardener, Mr. Lock), with good dishes of Peaches, Strawberries, &c., Black Hamburgh and other Grapes; second, the Earl of Dysart, Petersham (gardener, Mr. Conway), Peach Dr. Hogg being good.

Three bunches of black Grapes: First, Mr. James Lock, Otlands Lodge Gardens, with good Madreshead Court; second, Mr. G. Thompson, Hattonhurst Gardens, Hounslow; third, Mr. W. Lintott, Marden Park Gardens, Caterham.

Three bunches of white Grapes: First, Mr. James Lock, with good Foster's Seedling; second, Mr. W. Lintott, with the same variety; third, Mr. W. A. Cook, gardener to Colonel Simpson, Shirley House, Croydon.

Mr. Conway was first for a dish of Strawberries, Mr. Thompson for Peaches, and Mr. Lock for Cherries.

Mr. Beckett, Aldenham House Gardens, won the first prize for a collection of vegetables (prizes by Carter and Co.); Mr. Conway, Ham House Gardens, Petersham, being second; and Mr. Bentley, Cedar Court Gardens, Roehampton, third.

Mr. W. A. Cook, Shirley House Gardens, Croydon, was first for a smaller collection, and Mr. Bentley second.

NON-COMPETITIVE EXHIBITS.

Messrs. W. and J. Brown, Stamford, Roses, &c.; L. R. Russell, Richmond, alpinas; George Jackman and Son, Woking, Roses, Sweet Peas, and other hardy flowers; T. S. Ware, Limited, Feltham, tuberous Begonias, the doubles being very fine; John Peed and Son, West Norwood, Gloxinias, both plants and cut blooms; W. Spooner and Son, Woking, William Icton, group of Palms, Lilies of the Valley, Hydrangeas, Lilliums, &c.; William Thompson, Richmond, group of Palms, Spiraeas, &c.; Wills and Segar, South Kensington, handsome foliage plants in variety and Erica ventricosa magnifica; L. R. Russell, Richmond, Crotons, Caladiums, Dracenas, &c., all finely coloured; Mrs. H. L. Wardo, Petersham (gardener, Mr. A. Allum), a delightful group of Canterbury Bells; Hugh Low and Co., Enfield, Malmesbury Carnations, Vines in pots, &c.; J. Bruckhaus, Twickenham, Palms, Lilliums, &c.; Sir F. Wigan, Bart., Clare Lawn, East Sheen (Orchid grower, Mr. W. H. Young), a group of choice Orchids, including the unique Zygopetalum roeblingianum; T. S. Ware, Limited, Feltham, a charming bank of Roses, Sweet Peas, and miscellaneous hardy flowers; Earl de Grey, Coombe Court, Kingston (gardener, Mr. J. Smith), Roses in vases; and Wright Brothers, Richmond, rustic garden seats, &c., were the non-competitive exhibitors.

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.—C. H. Vermède.—1, Noella Nabonand; 2, Reine Marie Henriette.—R. G. B.—The Cut-leaved Alder (*Alnus glutinosa laciniata*). It is a variety of the common Alder which has been cultivated for many years, but we are not aware that it has occurred anywhere in a wild state.—C. E. F.—The *Lonicera* is *L. involucrata*, and the *Jasminum* is *Jasminum revolutum*.—G. Heath.—1, *Cattleya Mossie*; 2, *Verbascum phanicum*; 3, *Bambusa Fortunei variegata*; 4, *Selaginella uncinata* (syn. *S. cæsia*).—Redclyffe.—Orange Ball Tree (*Mulleidia globosa*).—J. T. H.—The light and dark purple *Rhododendrons* are both *R. ponticum*; the pink is a hybrid of *R. ponticum*, of which there are a great many unnamed sorts. The other specimen is *Magnolia soulangeana*.—David Howell.—*Muskwood* (*Olearia argophylla*).—E. P. Le Feuvre.—*Serophularia nodosa*; *Polemonium reptans*.—J. M. D.—1, *Saxifraga Geum*; 2, *S. Andrewsii*; 3, *S. cuneifolia*.—*Captain Thorold*.—1, *Iris spuria* var. *notha*; 2, *I. versicolor*; 3, *Hemantthus coccineus*; 4, *Syringa Emodi*; 5, *Helichrysum Pictolatum*.

Tomato leaves scorched (T. LESTER).—The Tomato leaves are undoubtedly scorched, and not diseased. You do not say whether the plants are out of doors or under glass, but we presume the latter. If this is the case, the scorching is most probably due to defective ventilation. It seems almost as if the early morning sun had shone upon the leaves when they were covered with moisture; air had not been left on the house during the night, or had not been given early enough in the morning.

Mushrooms (PERPLEXED).—I have very carefully examined the samples of Mushrooms and soil, but I cannot find anything to account for the Mushrooms not coming to perfection. I was unable to detect any insects or fungi. The spawn did not look healthy, and I cannot help thinking that perhaps the beds are worn out. Can this be the case? I should not have thought that the proximity to the stove-hole could have been the cause, but so much depends on the amount of fumes which reach your house that it is impossible for anyone at a distance to speak positively.—G. S. S.

Rose leaves diseased (G. M. A. B.).—Your Rose leaves are attacked by the Rose black spot fungus (*Actinomyces rosea*). The best remedy is to pick off the affected leaves and burn them. When the leaves fall in the autumn they should be collected and burnt. Spraying with fungicides which contain copper as soon as the buds open in the spring will check the disease, which is a very common one.—G. S. S.

Hollies injured (A. NORMAN DUGDALE).—A very common pest on Hollies. The best remedy is to spray finely with a solution of Blundell's Paris Green, 1oz. to ten gallons of water. This should be done earlier in the year, before the caterpillars have done so much injury. Paris Green is an acerbic poison and requires careful usage. The mixture should be kept well in motion whilst being used, so that the Paris Green does not settle towards the bottom, and the proportions named strictly adhered to.

Iris, &c. (CONSTANT READER).—*Iris tenax*, *I. watsonia*, *I. missouriensis* (*I. tolimiense*), and *I. douglasiana* succeed well when planted in a raised bed fully exposed to the sun. The soil should be a sandy loam, and the best time

for planting is in April. *I. missouriensis* will stand more moisture than the others, but does almost equally well under the same conditions. *I. Milesii* will not stand a severe winter in the open bed, but at the foot of a south wall or sheltered corner in loam, and with a south exposure, it is perfectly happy. *I. Delavayi*, *I. prismatica*, and *I. tridentata* require more moisture and will do in boggy ground or on the edge of a pond under the same conditions as *I. sibirica*.

Foxgloves (E. C. CLOUGH).—In all probability the sowing was made too late in the year and the plants were not sufficiently advanced to flower this summer. If no flowering spike is now apparent, the flowering of the plants will most likely be deferred to next year. To obtain flowering plants in any given year the seeds should be sown late in summer, planted into permanent or flowering positions in the autumn or spring ensuing, to make full growth during the summer and flower the following year. That is to say, sow the seeds after ripening in 1902, replant to flowering position, if large enough, the same autumn; allow a full season's growth during 1903, to obtain the best flowering examples in the early summer of 1904.

Double white Violet (E. C. CLOUGH).—We do not think you can plant a better kind than *Comte de Brazza*, also called Swanley White. The flower is large sized and free, the growth neat and compact. It is now late for planting out, unless you obtained freshly established pot plants of large size. Even though you obtained only ordinary sized plants, these would give ample stock in the ensuing autumn for another year. Early April is about the best time for planting such things, in ground well prepared during winter. The position should be somewhat shaded from hot sun, the soil rich and deep.

Clematis Jackmani alba (W. S.).—The flower is undoubtedly that of *Jackmani alba*. This is a very variable variety, the blooms sometimes coming single, at times semi-double, and at other times single and semi-double at the same time. The early blooms are also often tinged with purple, while the later ones are quite white. We should imagine that the plant alluded to, having been established eight years, had got on its own roots, and in moving the plant a portion with a breaking eye was left behind, and is what has now come up, but it is singular that the old plant should have borne single white flowers, and that this year both should be semi-double and tinged with purple.

TRADE NOTE.

HARTLEY AND SUGDEN'S "WHITE ROSE" BOILER.

"WHITE ROSE" is the name given by Messrs. Hartley and Sugden, Halifax, to a new cast-iron Sectional Boiler, which is the result of careful study, repeated practical experiments, and expert scientific knowledge. The special formation of flues, the proportionate grate area, and the quality and even thickness of the metal have all been thought out with a view to obtain a reliable and durable boiler. Messrs. Hartley and Sugden have added a new boiler to their foundry with the most recent appliances and machinery, and no expense has been spared to enable them to produce a boiler unequalled for economy of fuel, durability, rapidity of circulation, and convenience for the stoker. This boiler is made in sections, each 6 inches wide, and carefully machined and finished, so that each part is interchangeable and will fit accurately one to the other; the flow and return connections between sections are made with cast-iron push taper nipples. The sections are held in position, after they have been drawn together, by short bolts having a right and left-hand thread; this method has been found from experience to be more reliable than the single long bolt. The fire-bars are of the ordinary English pattern, and chilled on the face. Any part of the bars or bearers can easily be replaced without disturbing the boiler. The smoke-box is fitted with a removable cap, so that the chimney may be taken off vertically or horizontally; the damper is fixed in this box, and may be drawn out in right or left side. The fittings are all made specially strong, and cannot possibly be broken with fair usage; all hinges, door catches, and knobs are malleable, and fitted in a special manner to the boiler.

MR. R. LEWIS CASTLE (Gold Medallist of the Fruiters Company, and nine and a half years manager of the Duke of Bedford's Experimental Fruit Farm) is open to an engagement in any capacity where long practical commercial experience, together with a scientific study of horticulture, is requisite. Address: Ridgmont, Aspley Guise, Bedfordshire.

The New Horticultural Hall will be opened by his Majesty the King on Friday, the 22nd inst.

The Neill Memorial Prize.—The council of the Royal Caledonian Horticultural Society has awarded the Neill Memorial Prize to Mr. R. P. Brotherston, gardener to the Earl of Haddington, Tynninghame, Prestonkirk, N.B. The Neill prize is awarded biennially to a practical gardener who has performed meritorious services to horticulture, and consists of the interest on a capital sum of about £400, invested as a memorial to the late Patrick Neill. The award to Mr. Brotherston will be a highly popular one among the gardeners of Scotland, as well as in the wider circle acquainted with Mr. Brotherston's literary horticultural work.

** The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.



IRIS WILSONIANA (L.) BRUGGERIANA (L.) INTERMEDIA PURPUREA 4

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[JULY 9, 1904.]

FRUIT CROPS AND INSECT PESTS.

NEVER were the prospects of a good fruit year brighter than in the spring of 1904. Fruit trees of all kinds and in all places were covered with bloom, and no sharp frosts came to upset the prospects of heavy crops. But disappointment has followed the fair promise at the outset, and while some fruits—such as Pears, for instance—may be described as almost a failure, there is hardly a case in which the results have been completely satisfactory. Whatever may be the cause of the partial and, in some cases, entire failure, there can be no doubt that insect pests are in a measure responsible, for never of late years have fruit growers had such a plethora of enemies to fight against. It is not easy to understand why this should be, for in these days a knowledge of the habits of the common enemies of fruit is spread broadcast by various means and the market is flooded with insecticides and appliances, but in spite of all this insects flourish and multiply, and the damage they do seems to develop as the years roll on. Some say that our seasons have got out of order and the mild winters experienced of late years have been helpful in preserving injurious insect life, but, whether this be so or not, there is no ignoring the fact that the damage done by fruit pests this year is very serious.

When the drying easterly winds were blowing in early June hordes of aphid appeared, and, taking possession of stone fruit trees, such as Plums, Damsons, and Cherries, they crippled the young shoots, twisted up the leaves, checked the growth, and were doubtless the cause of many of the fruits falling. In Pear-growing districts that tantalising little pest known as the midge was early on the war-path, and to its agency the wholesale falling of the fruit at an early stage may be attributed. One has only to make a cursory examination of Apple trees to find traces of the ravages of the deadly winter moth caterpillar, and the time is not far ahead when Apples will commence to fall before they are fully ripe through being bored with the grub of the codlin moth.

Turning to bush fruits, tales of woe come from areas where Gooseberries are largely grown, telling of the devastation caused by caterpillars, which have stripped the bushes of their foliage. Nor is the caterpillar the only enemy of Gooseberry growers, for the dry weather has been conducive to the spread of

the Gooseberry mite, a tiny insect belonging to the red spider family, which infests the foliage, causing it to fall, and often bringing about the death of old bushes. Aphides have crippled the shoots of Red and White Currants, and those who failed to pinch out the points of the growths before the insects made headway will have sticky and dirty fruit. Our attention was recently directed to a plantation of Black Currants which was infested with aphids. Most of the leaves had shrivelled up and fallen off, leaving the bunches of fruit hanging on the stems and exposed to the blistering effects of the sun.

There can be no doubt about the unsatisfactory character of this state of affairs, but the all-important question is the remedy. Nature protects her own, and it is hopeless to expect that insect foes can be obliterated entirely, but the damage done might be lessened considerably by more co-operation on the part of growers. Many of the latter are fully alive to the necessity of fighting insect pests, but it is discouraging for a man to spend time and money in protecting his crops if his neighbour does nothing at all. The day is surely coming when there must be some combined efforts in fruit-growing areas in order to prevent the serious damage done by insects. At one time it was not considered necessary to spray Kentish Hops to keep down blight, but now every grower recognises that this is absolutely essential, and on some of the large farms elaborate machinery has been put down at great expense for this purpose. So long as the present haphazard method goes on, and one grower makes honest attempts to keep down insect pests while another does nothing, the present unsatisfactory state of affairs will assuredly continue.

Another common mistake is that of letting the enemy get established before any destructive measures are adopted. We have already mentioned the damage done by aphid amongst Plums, Cherries, and other crops, and everyone knows the marvellous rapidity with which these insects increase. Unfortunately, we have a philosophical way of watching the increase of aphid and then bemoaning the damage instead of dealing with the evil when it first appears, at which time its depredations can be checked by pinching out the points of the shoots in some cases, and in others by applying a simple insecticide. A spraying apparatus does not cost a great deal, and there ought to be one in every establishment where fruit is grown. As for insecticides they can be readily

made at home or be purchased in a prepared form ready for application. More winter attention is also wanted, and if people would only realise the importance of keeping the stems and bark of trees free from obnoxious moss growths by applications of a caustic alkali solution when growth is dormant, there would be far less need for washing and spraying after growth begins.

No art or magic will ever help fruit growers to get rid of the common insect foes which cause so much damage, and the only things are watchfulness and perseverance. To these may be added co-operation in the common interest, for until there is a better system of combination in the destruction of insect pests the trouble experienced this year will continue.

EVENING IN THE GARDEN.

"The sun has long been set,
The stars come out by twos and threes,
The little birds are piping yet
Among the bushes and trees.
There's a cuckoo and one or two thrushes,
And a far-off wind that rushes,
And a sound of water that gushes,
And the cuckoo's sovereign cry
Fills all the hollow of the sky.
Who would go parading
In London and masquerading
On such a night in June,
With that beautiful soft half moon,
And all the innocent blisses
Of such a night as this is?"

It is evening in the garden, and there is no sound of rushing life, of haymaker's scythe, or gardener's busy hands. The silence is broken only by the soft sighing of the summer breeze among the Elms that border the garden, and by an occasional rustle in the shrubbery where the thrushes and blackbirds have gone to rest. Even the persevering cuckoo's note is hushed, but the sparrows twitter faintly among the creepers. From a lonely thicket comes the soft passionate voice of the nightingale, and in the field close by a partridge calls from her nest among the tall grass. A tiny nightjar passes silently overhead and bats hover to and fro among the trees. It is at this hour that the garden is almost at its best, I think; and Victor Hugo must have thought so when he wrote, "C'est Dieu qui fait la nuit plus belle que le jour."

To-day is the longest day in the year, and certainly there seems a much lengthier twilight than yesterday. Since the sun slowly sank an hour or so ago, a ball of flame in the glowing sky, the flowers surely give out more scent and are inspired with stronger life than they possessed even during the radiant day. In the Rose garden glorious La France, Allan Richardson, and Bouquet d'Or lift their sweet heads and dainty buds, and some cherishes

three year old trees are putting forth their first flowers. The herbaceous borders are a medley of scents—Tobacco plants, old-fashioned Lupins, white and yellow, Sweetbriars, and Lilies, a mass of colour even in this dim light. I walk round the herb garden, absently pulling a sprig of Lavender or Rosemary and a leaf of Balm. I tread among the snow from the flowering Acacia on the lawn and the Ilex leaves that fall so persistently this time of year.

A tiny ringdove which has fallen from the nest or pushed out by a too impatient mother, flutters at my feet, and hides itself among the Ferns in the rocky. The Calvary Thorn tree, a mass of white blossom, looks ghostly in the dusk. No bird will roost beneath its spreading branches or feed on the attractive red berries with which it is decorated in autumn. Only the bees do not seem to have any feeling on the subject, and all day long the air is filled with their cheerful hum as they seek for honey among the blossoms of the Calvary Thorn. The sky is gorgeous with changing lights, deep crimson shading to purple and orange. A bank of fine weather clouds and a red afterglow promise well for the morrow. "Red at night is the shepherd's delight."

As I walk the darkness deepens, for even the longest day must have an end. Stars creep out in the opal sky, and the moon, bright angry, emerges clear and cold through a fleecy cloud that passes slowly to windward.

Beyond the garden gate, and approached through the ghostly shrubbery, is a field of waving Oats, flecked with golden Mustard, and a belt of tall Firs stand out sharply against the horizon, where miles of lonely forest stretch into the far distance.

A shining silver ribbon marks where the river winds through pastures down to the sea. The river banks are bordered by trees that slope to the water's edge and dip their waving branches into the cool water. Can one tell the future from the sky as the ancients did, and hope or despair from the signs read in the heavens? If so, to-night should portend a rosy future, and there is a feeling of peace in the air.

Alas! one cannot stay all night in the garden, even in midsummer, unless one is lucky enough to be born a Romany and live happily in a caravan under the greenwood tree, amid the fresh winds of Heaven, and as I write the distant bell from the abbey tells the hour, and it is time to leave my evening garden.

DOROTHY HAMILTON DEAN.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

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 22.—Opening of the New Horticultural Hall, Vincent Square, by His Majesty the King.

Royal Horticultural Society.—The next show of this society will be the great summer flower show, to take place, by the kind permission of the Earl and Countess of Ilchester, at Holland House, on Tuesday and Wednesday next, siter which the new Exhibition Hall, built to commemorate the centenary of the society, will be used for future fortnightly shows. These fortnightly shows commenced nearly 100 years ago by Fellows exhibiting objects of interest at the general meetings of the society then held in Gerrard Street. In 1820 they were removed to Regent Street, by which time the shows had increased and were organised on much the same lines as the present day. They were afterwards transferred to the society's garden at South Kensington, whence, on the site being surrendered in 1887, they were again moved, and have for the last seventeen years been held at Buckingham Gate. At the general meeting of Fellows held on the 28th ult., Mr. George Bunyard announced from the chair that His Majesty the King had graciously consented to open the society's new Exhibition Hall, in Vincent Square, on Friday, July 22, on which occasion it was hoped that he would be accompanied by Her Majesty the Queen and several other members of the Royal Family. Among the seventy-one new Fellows elected were Sir Patrick Playfair, Captain T. G. Whistler, Lord Elphinstone, Colonel Maitland Hunt, Lieutenant-Carol W. Horatio Harfield, Sir Robert N. Hensley, Lord Inverclyde, Lady Knowles, Mr. Horace C. Monro, C.B., and Rear-Admiral Sir B. Milne, Bart. A paper on the "Hybridisation of Roses," by M. Vivand Morel, was read, in which he gave a short resumé of the history of hybridisation, with several practical hints to be followed by Rose growers. He pointed out that it is still possible to obtain good new varieties, and even to create new sections, on only one condition, that is no longer to trust to chance as a guide in seed saving. He added it was from working without discernment that many raisers of seedlings have so often obtained the same varieties, hardly to be distinguished from one another, but when a series is exhausted it is useless to endeavour to obtain endless new varieties from it.

National Dahlia Society.—A meeting of the committee of the above society will be held, by kind permission of the Horticultural Club, in the Club Room at the Hotel Windsor, Victoria Street, S.W., on Tuesday, the 26th inst., at 2 p.m. The chief business will be the election of judges for the London exhibition.—P. W. TULLOCH, *Hon. Secretary.*

The largest Rhododendron ponticum in Wales.—Mr. Mitchell, Glyn Celyn, Brecon, sends a photograph of this well-known Rhododendron. It is considered the finest specimen in South Wales, being 50 yards in circumference and 10 feet in height, and leafy to the ground level. Mr. Mitchell writes: "As far as I can find out it is about fifty years old, and is growing in a strong and heavy loam inclined to clay."

The raisers of Rhododendron Pink Pearl.—Messrs. John Waterer and Sons, The American Nursery, Bagshot, Surrey, writes: "We notice in your leading article in THE GARDEN of the 25th ult. that you say 'We probably owe Pink Pearl to the late Mr. J. H. Mangles.' Surely, seeing that we were the raisers of this variety, the credit should have been given to us." We hasten to correct any wrong impression that may have been conveyed by our remarks.

Three good Verbenas.—These old-fashioned flowers are very attractive in the summer garden, and varieties of distinct and rich colouring may now be had which make a bed of them much more effective than used to be possible. It is unnecessary to do more than mention the rich pink variety Ellen Willmott, for everyone who grows Verbenas now grows this one. King of Scarlets is a new sort that has been shown a good deal lately, and as striking in its particular colouring as the popular one just mentioned. King of Scarlets is well named, for it produces flowers of intense scarlet. It is recommended for bedding and particularly for pot culture; it is very free blooming. Princess of Wales is another Verbena of distinct

and striking appearance. Messrs. William Cutbush and Son, Highgate, showed a large group of it at the last Drill Hall meeting. The dark green leaves with crinkled edges and the beautiful purple flowers associate well and combine to make a plant that is sure to become popular for bedding and also for pot culture. With these three varieties and Queen of Whites, the finest of the white Verbenas, producing splendid trusses of bloom, it may be said that one would have the four best Verbenas that are now to be obtained.—A. H. P.

Hemerocallis fulva maculata.—This is now in full flower, whereas the *Hemerocallis fulva* is just over. Mr. Sprenger received this new variety from the late Padre Giraudo, Shen-shi, China, and Professor Baroni, Florence, has named it as *fulva maculata*. It is quite distinct from the common European *fulva*. The whole plant is taller, stronger, the flowers are more numerous, and the colour is brighter and the petals broader. This variety will certainly find favour for the border. I never saw seed capsules on *H. fulva*, but the *fulva maculata* has borne seeds here, and the next time I hope to tell your readers about some new hybrids of it. There are seedlings from *H. fulva maculata* and *H. Thunbergi*, *H. aurantiaca* major and *H. citrina*, and *vice versa*.—WILLIAM MULLER, *Naples.*

Erodium pelargoniflorum.—This *Erodium*, a small plant of which I received from my friend Mr. Arthur Goodwin last year, is certainly a wonderful bloomer. My plant commenced to flower soon after it became established in its new quarters, and continued to bloom until the end of November. It kept growing all the winter, and on the last day of February opened the first of its new crop of flowers. Since that date it has been in profuse bloom, and, although numberless seed-vessels are formed, will apparently continue in flower for many weeks. This plant is now over 3 feet across. The flowers, though not individually very striking, have a pretty effect in the mass, and the great length of time through which the plant is in bloom renders it especially valuable.—S. W. F.

Campanula muralis major.—This *Campanula*, which is also known by the name of *C. portenschlagiana* major, is one of the best of the Bell-flowers for covering spaces in the rock garden or for rough stone edgings. It is a marvellous bloomer, coming into flower in the late spring, being at its best in early June and continuing to flower for many weeks, often perfecting a second crop of autumnal bloom. Last Christmas I sent flowers of this *Campanula*, picked from the open, for the Editor's table. This *Campanula* appears absolutely indifferent to soil and exposure, though it does not flower quite so freely in a shady site as in a sunny one, but I have seen it doing well under both conditions, and have noticed it the picture of health growing in pure rubble and also in heavy loam inclining to clay.—S. W. F.

Carnation Mrs. Frank Shuttleworth.—This is a very fine rose-coloured self Carnation, raised by Mr. W. C. Modras, The Gardens, Old Warden Park, Biggleswade. It is an excellent grower, produces grass and flowers freely. The latter are large and full, the petals stout, smooth, and shell shaped; it is an addition to both the exhibition and border groups. Uriah Pike having been one of the parents, it is pleasantly fragrant. I believe it is being distributed by the raiser.—R. D.

Dundee Flower Market.—The flower market in Craig Street, Dundee, the recent opening of which was reported in THE GARDEN at the time, has proved remarkably successful. One end is occupied with fixed stalls, let by the year, while a portion is fitted up with stands let daily, the understanding being that regular stand holders should have the preference for the one they generally occupy. The stalls at the end are occupied by such leading Dundee firms as Messrs. Storrie and Storrie, Messrs. Thyne and Paton, and Messrs. Harley and Sons, and some of these occasionally take up a stand as well. A proposal made by Messrs. Storrie and Storrie that the corporation should erect a conservatory at the market, which they offer to rent, is under consideration, and if agreed to would probably improve the character of the market and trade.

Begonia bowringiana.—According to the "Dictionary of Gardening" this *Begonia* is synonymous with *B. laciniata*, a native of Nepal and Southern China, and introduced from there in 1858. The description, however, does not seem to apply to *B. bowringiana* as shown by Messrs. Sander last year at Ghent, and more recently at the Temple show. It is a bold-growing plant, forming a decided stem perhaps 2 feet in height, and furnished with leaves which rival the finest forms of *B. Rex*. The individual leaves of *B. bowringiana* are about 18 inches long, and nearly the same in width. The upper surface is velvety green of varying shades, while the midrib and veins being of a clear bright red stand out very prominently from the rest of the leaf. The under sides, too, are of a uniform bright red tint, richer in colour than in most *Begonias*. Not only is this *Begonia* valuable for its intrinsic merit, but it has been already employed for hybridising purposes, and in conjunction with varieties of *B. Rex* has yielded some beautiful and distinct forms, two of which—*His Majesty* and *Our Queen*—attracted much attention when exhibited at the Drill Hall on October 27 last. On that occasion each of them was given an award of merit.—H. P.

Allamanda grandiflora.—Though this *Allamanda* has been in cultivation for the last sixty years or so, and it is certainly one of the most distinct and beautiful of the genus, it has for some reason or other become very rare in cultivation, so much so, indeed, that very few nurseries are able to supply it. At Kew it is just now flowering freely, and the blossoms at once arrest attention by reason of their great beauty and distinct shade of lemon-yellow. Compared with such as *A. Hendersoni*, the species under notice is of a dwarf, compact habit, the slender shoots being clothed with small, thin leaves, while a succession of flowers is kept up for a considerable time. It may be grown as a rafter plant in a small or medium-sized structure, or, if preferred, as a loose-growing bush. Perhaps the scarcity of this *Allamanda* is to a certain extent accounted for by the difficulty attending its propagation or, rather, its successful culture, for, while cuttings are not at all difficult to strike, they seldom grow in a satisfactory manner. This may be obviated by grafting upon one of the vigorous growers, such as *A. Schottii*, with which a union is readily effected, and the after culture gives no further trouble. *Allamanda grandiflora* is, like most of the other cultivated species, a native of Brazil, whence seeds are said to have been sent by the collector Gardner in 1836, from which plants were raised and in time distributed.—H. P.

National Chrysanthemum Society's annual picnic.—The annual picnic and outing will, by the kind permission of Miss A. A. de Rothschild, take place at Waddesdon Manor, Bucks. The date fixed for the picnic is Tuesday, the 19th inst., and the cost, inclusive of railway fare to and from Baker Street, conveyance to and from Waddesdon Station to the Manor, dinner and tea, will be 10s. 6d. Ladies are specially invited. The company will be conveyed to Waddesdon Manor Station by the Metropolitan Railway, from Baker Street Station, No. 2 platform, at the time set forth on the annexed programme. Dinner and tea will be provided at the Five Arrows Hotel, which is close to the entrance gates. Note.—Accommodation will be provided for ladies at the hotel. The gardens and grounds of Waddesdon Manor are of a very attractive character, and advantage should be taken of this opportunity to inspect them. Should any be disposed to walk, there is a footpath across the fields to Waddesdon Manor, distance about one mile or so. The entrance to the fields is close to the railway station. The programme will be as follows: 10.15 a.m.—Assemble at Baker Street Station, platform No. 2. 10.25 a.m.—Special train leaves for Waddesdon Manor Station, calling at Finchley Road at 10.30, Harrow at 10.45, and Rickmansworth at 10.55, also calling at these places to set down on the return journey. 11.40 a.m.—Train reaches Waddesdon Manor Station, from which conveyances will carry the party to the Five Arrows Hotel. 1 p.m. sharp.—Dine at

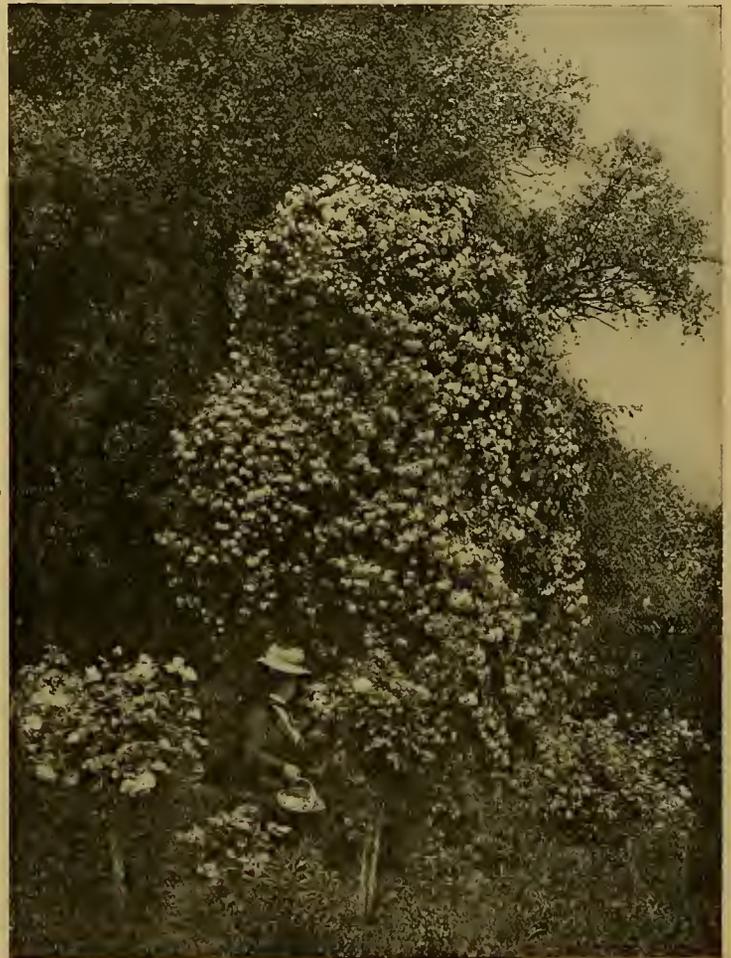
the Five Arrows Hotel. During the afternoon there will be an inspection of the gardens and grounds. 5 p.m.—Tea will be provided at the Five Arrows Hotel. 6 p.m.—Go as you please. 7.20 p.m.—Conveyances leave the Five Arrows Hotel for return journey. 7.50 p.m.—Train leaves Waddesdon Manor Station for Baker Street.—RICHARD DEAN, V.M.H., *Ranelagh Road, Ealing, London, W.*

Diosma capitata.—There were so many subjects to engage the attention of visitors at the Temple Show, and owing to the crowd few had an opportunity of closely inspecting them, that it is possible few noticed the flowering specimens of this hard-wooded greenhouse plant in the interesting collection staged by Messrs. W. Balchin and Son of the Hassocks Nurseries, Sussex. It is a charming plant for the greenhouse, dwarf and compact in growth, blooming with remarkable freedom. It can lay claim to some fragrance, and it lasts a long time in bloom. The plant bears the name given at the head of this paragraph at the Hassocks nurseries, where it is regarded as a very old subject, but I cannot find it in plant catalogues. Perhaps it may now be included among the *Pimeleas*. It throws up numerous heads of lavender-coloured flowers of a pleasing shade, and it makes a model subject for pot culture. Cuttings are made of the young growths when 1 inch or 1½ inches in length; they are inserted in 6-inch pots filled with a sandy compost and covered with a bell-glass; they root in about three months, and then are potted singly in 2½-inch pots in a compost formed of peat and sharp sand. These young plants are stopped a time or two, then repotted as required, and grown on into bushy examples. Three year old plants will produce one hundred heads of bloom. It is more compact in growth than *D. ericoides*, with quite a *Pimelea*-like habit. Certainly a delightful plant for those who can cultivate it.—R. DEAN.

Blue Tufted Pansies.

—For the last two or three years more attention has been given by certain raisers to the introduction of a better lot of blue Tufted Pansies than has been the case for a long time. When looking through the list of catalogued sorts recently I was struck with the dearth of really good blue varieties. Some of the existing sorts are of a good and striking colour, but when the question of habit is considered and the quality of the flowers, too, is looked into, it is astonishing how far they fall short in this respect when compared with Tufted Pansies of other colours. The near future has many good things in store for us, but until they have been distributed it is almost useless to refer to them individually. There are several good sorts, however, of which but little is known, and although they are not a true shade of blue, they are near that colour. Jackdaw is a new sort, of a pretty heliotrope blue, with a bright yellow eye and rayless. The flowers hold themselves up well, and they are freely

developed on a sturdy habit. Blue Tit, a pretty little mauve-tinted blue flower, is charming. The plants are small in the first instance, but ultimately make beautiful tufts, literally covered with flowers. Duncan, introduced in 1901, is a fine bedding sort. The colour may be described as deep bluish purple, and most effective. The plant has a splendid constitution. Admiral of the Blues, in a spray, as seen at the Temple show, is beautiful. It is a deep blue and rayless. As a bedding sort, however, it cannot be highly recommended, as its habit is poor. A pretty pale mauve-blue is John Quarton. It is a good bedding plant, and was in fine form a few days ago in Mr. William Sydenham's garden at Tamworth. A miniature-flowered sort is Pigmy. This is a heliotrope blue flower with a rich yellow eye. The plant has a splendid constitution and a good habit. I recently saw this variety used as an edging to a long bed down the



CLIMBING CLEMATIS OVER WILLOWS.

whole length of a carriage drive, and the effect was very fine.—D. B. CRANE.

The Scotch Laburnum.—Among flowering trees the Laburnum holds a foremost position. The common one (vulgare) is abundant, but the one under notice is not, judging by the few one sees; many planters are not acquainted with it. By planting both sorts the period of blooming can be lengthened from two to three weeks. I have been impressed with this for several years, where both sorts are growing side by side. Now, in the last half of June, the Scotch kind is just at its best, while the common one has been over nearly a fortnight. In grounds at some distance from the house nothing is more charming than a large mass backed by other evergreens. I often think this and many other of the strong growing flowering trees are not used so freely as they ought to be to brighten the landscape. Often a few could be



ROSE OVER AN OLD ESPALIER.

added when planting groups, &c., placing them near the outside, e.g., a highly coloured Apple, wild Cherry, Thorns, red Chestnut, or white Acacia. This Laburnum is somewhat stronger growing, has shining foliage, and the racemes of flowers are longer. Some consider it rather shy blooming. This is not so in our grounds. While writing I may suggest to those desirous of continuing the flowering season that they plant Laburnum in a north situation, this retards it.—J. CROOK.

Littonia modesta.—The introduction of the beautiful *Gloriosa rothschildiana*, which attracted so much attention at the Temple show, will doubtless serve to call attention not only to the *Gloriosas*, but also of their near allies. One of these is the above-mentioned *Littonia modesta*, a native of Natal, whence it was introduced about fifty years ago. It passes the winter in a dormant state, during which time the soil should be kept quite dry, and in spring the curiously shaped tubers must be shaken from the old compost and repotted. In a warm greenhouse or intermediate temperature if the soil is kept slightly moist they will push up slender succulent shoots, which quickly lengthen and soon acquire a climbing habit, supporting themselves by slender tendrils. The flowers, produced singly from the axils of the leaves, are drooping, bell-shaped, 2 inches or so across, and of a bright orange colour. Individually they do not last long, but a succession is kept up for some time. A near ally of the above is *Sandersonia aurantiaca*, also a native of Natal, and introduced about the same time as the preceding. This is a slender twiner, but of a less pronounced climbing habit than the *Littonia*, while the flowers are broadly urn-shaped and bright orange-yellow.—H. P.

Digitalis obscurus.—A plant given to me under this name is now in flower. It is 3 feet in

height, and its numerous flower-spikes, with two branches at the base, are about 15 inches in length. The flowers, which are orange, edged with chestnut, are 1 inch in length and three-quarters of an inch across the mouth. The leaves are rather over 6 inches in length and half an inch in breadth, and are smooth and shiny on both surfaces. I can see no account of the plant, and find that it is not mentioned in the "Kew Hand List." I had thought from its name that it might be synonymous with *D. ambigua*, but the leaves of that plant are described as being downy beneath. It is not a strikingly handsome plant, but is interesting, and has a quiet charm of its own.—S. W. FITZHERBERT.

Cistus ladaniferus.—It is, as far as I know, impossible to procure the type of this plant with pure white flowers, though a few years ago, while journeying by rail from Algeciras to Ronda in Spain, I saw many hundreds of plants in full flower close to the line. The variety of *Cistus ladaniferus* named *maculatus* is, I believe, in commerce, but is hard to obtain. Most nurserymen catalogue it, but grow *Cistus cypricus* under that name. Both have white flowers with maroon-carmine blotches near the bases of the petals, but the flowers of *C. ladaniferus* are larger and are borne singly at the ends of the shoots, while in *C. cypricus* several are produced at the extremity of each shoot. *Cistus ladaniferus maculatus*, true, has a splendid flower. I have just measured one that is slightly over 5 inches across, the pure white crêpe-like petals set off by the dark, carmine-edged blotch being very beautiful.—S. W. F.

ROSES OVER OLD TREES.

SOME of the best Roses for covering old fruit trees are the following. The soil in this garden (Thames Valley, Berkshire) is very light, and it is taken out to a depth of 18 inches. This brings one to a bed of chalk. I then mix up the following compost: Two parts of rich loam, one part well-decayed horse manure, one part of good road sand, and to every load two barrowloads of old mortar rubble and one barrowload of wood ashes are added. I find all the Tea and Hybrid Tea Roses do exceedingly well and flower profusely. A large quantity of climbing Roses are grown on old fruit trees. A hole is taken out about 3 feet square and filled in with the same compost as for the dwarf Roses. This gives them a good start, and I have no hesitation in saying that climbing Roses cannot be grown in a better way to show their effectiveness than by allowing them to ramble over old worn out fruit trees. Some of the Roses have only been planted two and a half years, but they are now 20 feet high, and almost cover the branches. They occasion

no further trouble beyond the winter pruning. The best climbers for trees, according to my experience, are the following: The first to flower here is Carmine Pillar; this has a clear carmine flower and beautiful foliage. The next best is the lovely Mme. Alfred Carrière, which is never without flowers from the early part of June till October. The Dawson Rose is excellent for trees. My next best is the little Thalia. I have it growing on an old standard Apple tree, and its flowers very much resemble the Apple blossom. In June Dundee Rambler is a good Rose for running over an old tree. We also grow Euphrosyne, Electra, Paul's Single White, Rêve d'Or, and Gloire de Dijon, all of which do well. One other Rambler I must not forget, namely, Dorothy Perkins, which is the best of all pink Rambler Roses for a south wall. The beautiful Fortune's Yellow grows and flowers well here. It is planted on the house and sheltered from the west by a very large bay window, it has covered a space 30 feet square in less than three years. Grüss an Teplitz makes a good pillar Rose, and shows its deep red flowers much better than when grown as a bush.

The following Roses are excellent for massing: Anna Olivier, Dr. Grill, Marie van Houtte, G. Nabonnand, Jules Finger, Princesse de Sagan, Viscountess Folkestone, Caroline Testout, Papa Gontier, Hon. Edith Gifford, Antoine Rivoire, Killarney, Liberty, Mrs. W. J. Grant, Marquise de Salisbury, Mme. Chedane Guinoisseau, and for a long border the pink Chinas and Lavender make a charming effect. A bed of the little Polyantha Rose is always interesting. I find the following varieties make a very good mixture: Etoile d'Or, Mme. E. A. Nolte, Perle des Rouges, and Marie Pavie. S.

SOME OF THE NEWER ROSES AT DROPMORE.

DURING the past five years many good Roses of all sections have been added to our lists, and the present season having so far been most favourable for their growth we may reasonably hope to see many of the varieties well exhibited at the forthcoming shows. English raisers have within the time named given us by far the largest number of what are likely to prove varieties of sterling merit. Any new Rose introduced by such growers as Messrs. Alexander Dickson and Sons of Newtownards, Messrs. Benjamin Cant and Sons, Messrs. Frank Cant and Co. of Colchester, Messrs. W. Paul, and Paul and Son, is a sufficient guarantee that a good variety may be expected. Taking the

HYBRID PERPETUALS

first, pride of place must be given to that excellent white variety

Frau Karl Druschki, sent out in 1900 by Mr. P. Lambert. This is by far the finest white Hybrid Perpetual; the flower is snow-white, petals shell-shaped, and it builds up into a perfect exhibition bloom. This variety must be well treated, so that a strong growth is made, otherwise it will come rather thin.

Ben Cant (B. Cant and Sons, 1902).—This Rose has proved somewhat disappointing here. Last season the blooms were thin, but it has made much better growth during this season, and the buds are promising. The colour is crimson, with darker shading.

Mrs. Cocker (Cocker and Sons, 1899).—This is an excellent variety of a soft pink colour. The flower is full, and the growth of the plant all that can be desired. A really good Rose.

Rosslyn (A. Dickson and Sons, 1900).—This is a sport from the well-known Suzanne Marie Rodocanachi. The colour is a beautiful shade of rosy flesh, but up to the present time I have not seen a really good flower of it. There is also another sport from the first-named variety named Marie Corelli, sent out by Mr. Prince of Oxford.

HYBRID TEAS.

New varieties in this section are more numerous. Messrs. Alexander Dickson of Newtownards, who have raised so many good Roses, have given us many splendid additions during the time named. Foremost amongst them I would place

Bessie Brown, which is too well known to need description here.

Duchess of Portland (1901).—This has proved disappointing here. The growth is poor, and several plants have died, but those who have seen the beautiful flowers exhibited by the firm will not willingly give up trying to grow it.

Lady Moyra Beauclerc (1901).—I think this will prove a splendid exhibition Rose in good seasons. The growth is fairly vigorous. The flowers come singly, and are of a lovely silvery rose shade. They are of the much desired pointed shape, and last well. A most attractive Rose.

Mildred Grant (1901).—Visitors to Rose shows who have seen the glorious flowers of this Rose are always charmed with it. In the hands of our best growers it is a grand variety, but it will not succeed with all growers. It is quite an exhibition Rose.

Liberty (1900).—A splendid Rose for bedding and massing, also for pot culture. It is not quite large enough for exhibition. The flowers are brilliant crimson, and of the same shade as Mrs. W. J. Grant.

Papa Lambert (P. Lambert, 1899).—This is a good grower, but the flowers fail to open well. The colour is deep rose. It wants a favourable season, and is promising well this year.

Robert Scott (R. Scott and Sons, 1901).—This is a good Rose. Growth and foliage excellent, and the flowers are of large size and open well. Colour light pink; of excellent form and substance. A really good Rose.

Edith Dombtrain, *Alice Lindsell*, and *Alice Grahame* have not yet flowered here, but all seem likely to prove acquisitions to this class.

TEAS.

Boadicea (W. Paul and Son, 1901).—This promises to be a good addition to the exhibition Teas. The growth is vigorous and free, the flower of good size, pink in colour, shaded in the centre to deep rose. The flower lasts well.

Lady Roberts (Messrs. F. Cant and Co., 1902).—A sport from that excellent variety Anna Olivier, and similar to it, but differs in colour. In the sport this is of a peculiar but very beautiful shade of coppery red. A good Rose in all respects.

Mrs. E. Mawley (A. Dickson and Sons, 1899).—This variety is now well known, and has all the qualities that go to make up a perfect Tea Rose. One of the very best.

Mrs. B. Cant (1901).—A variety of strong growth, and a good autumnal bloomer suitable for planting in the Rose house or on south walls; colour deep rose.

Souvenir de Pierre Notting (Souper and Notting).—A beautiful variety. The colour of the flowers is a lovely shade of apricot. A well-developed bloom rivals a typical flower of Maréchal Niel in size. It is quite worthy of the gold medal awarded to it by the National Rose Society.

GARDEN ROSES.

These now claim a place in all gardens where Roses are grown, and now that their requirements are better understood very fine effects are produced by planting them in suitable positions, such as in masses in the wild garden or for covering arches, pergolas, and bowers.

Electra, sent out by Messrs. J. Veitch and Sons, is an excellent variety; the flowers are yellow, and in large terminal trusses. A most desirable variety.

The Lion (Paul and Son).—This has crimson flowers and is a very fine pillar Rose. The single Wallflower from the same firm is a splendid variety for hedges and pillars; the flowers are rosy crimson. This does well on a bank.

Blush Rambler (Benjamin Cant and Sons, 1903).—This is a beautiful pillar Rose, and suitable for positions where it can have plenty of room. The colour is blush-pink; it is as free as Crimson Rambler. It received a gold medal from the National Rose Society in 1903. These and many others are all worthy of extensive cultivation where room can be found for them. Whilst writing of garden Roses I would like to recommend to lovers of this type an old favourite here—Mme. Alfred Carrière (Hybrid Noisette), sent out by Schwartz in 1879. It is an excellent Rose for pillars. The flowers are large, white, with a yellow base. No Rose that I am acquainted with has such a delicious scent, and is almost perpetual in flowering. Another old variety I can recommend is

Gloire des Rosomanes (Hybrid China).—The flowers are deep crimson and produced in large

clusters; it is excellent for exposed positions. I have several times cut excellent flowers from this variety at Christmas.

CHARLES PAGE.

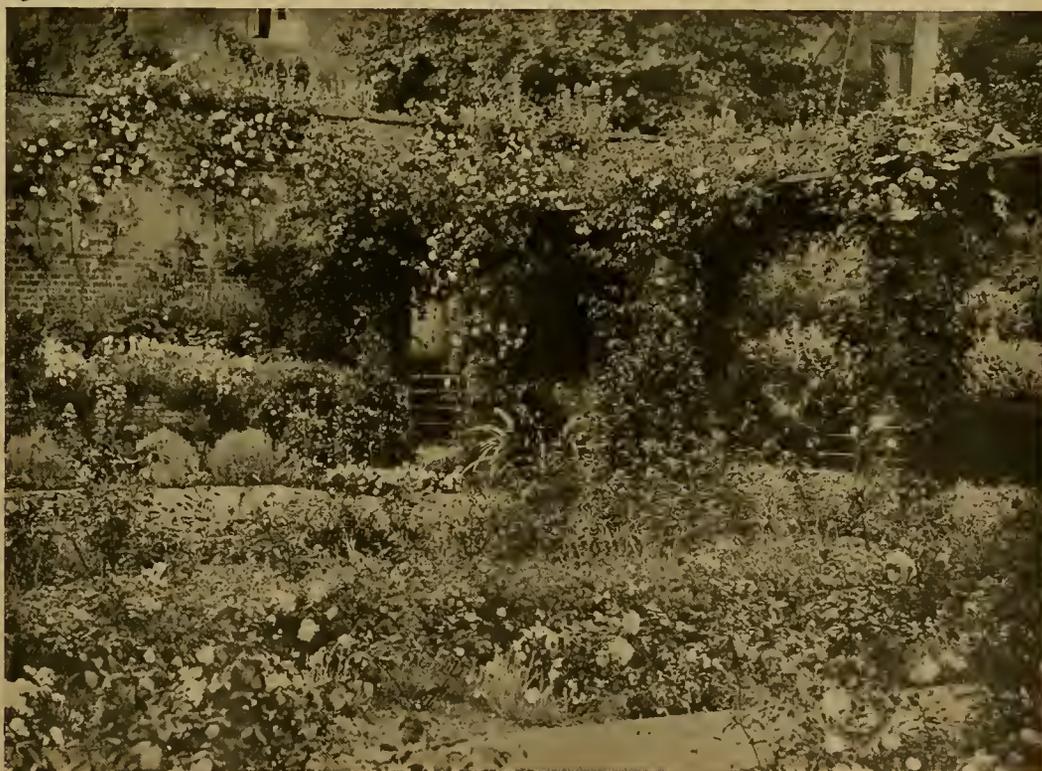
Dropmore Gardens, Maidenhead.

THE ENEMIES OF THE ROSE.

THE following revised notes by that excellent rosarian and hon. secretary of the National Rose Society were contributed to "Roses for English Gardens," but they are of sufficient importance to reprint in

THE GARDEN.

There is scarcely any other plant which is attacked by so many or such persistent enemies as the Rose. Strange to say, writers on Rose culture, in enumerating these, invariably omit to mention the most potent enemy of all, and that is, adverse weather. It is not only that these adverse weather conditions often inflict more serious and lasting injuries than all the other enemies of the Rose put together, but they are also indirectly responsible for the worst attacks from insect and other pests. Taking all classes of Roses together, there is perhaps no climate in the world so favourable to their perfect development as that of the British Isles, and, provided seasonable weather could always be depended upon, these islands would be a perfect paradise for the rosarian. Unfortunately, this is far from being the case, as more or less unseasonable weather must be regarded in this country as the rule rather than the exception, and consequently he is kept in a continual state of anxiety as to what unfavourable climatic changes his favourites may next be called upon to encounter. No doubt one reason for these anxieties is due to the fact that most of our cultivated Roses are only half-hardy plants,



A PAVED GARDEN OF ROSES (BERKSHIRE).

and therefore peculiarly susceptible to all kinds of unfavourable weather influences.

Frosts.—These may be divided into two classes—the winter frosts and the spring frosts. Against the former the protection provided cannot well be too complete, whereas very moderate means will mostly be sufficient to ward off injuries from spring frosts; and yet against the ill effects of these spring frosts there is practically no remedy, unless it be syringing or spraying the frosted foliage with water very early in the morning in order to thaw it before sunrise. For at that season it is not so much the damage done by the frost itself that has to be guarded against as the sudden thawing of the frozen leaves by the sun shining on them. Of course, the reason why spring frosts are so difficult to deal with as compared with winter frosts is that in the one case the plants are clothed with delicate young foliage, whereas in the winter it is only necessary to protect the lower portion of the leafless and well-ripened shoots.

Early in December all the dwarf or bush Roses, whether Hybrid Perpetuals, Hybrid Teas, Teas, or Noisettes, &c., should have the surrounding soil in the beds drawn over the centre or crown of the plants to the height of several inches. In other words, they should be earthed up like Potatoes. This earthing up is generally confined to the Teas, but no amateur will regret having given his other dwarf Roses this extra attention should the winter prove unusually severe, for there are comparatively few varieties which will be found at pruning time after such a winter with perfectly sound wood even within a few inches of the surface of the beds.

Standard Roses are less easily protected. Bracken, cut in September before it has become brittle, should be secured to the heads; or a more effectual protection may be afforded the standard Teas by first drawing the shoots of the plant together and then lightly thatching the head with Straw or Bracken fastened above it to a firm stake, with one or more ties lower down, as may be necessary to prevent the Straw or Bracken from being blown aside in high winds. Tender wall Roses, such as *Maréchal Niel*, are best protected by fastening over them some fine cotton netting, or by placing Bracken, small sprigs of Fir, or other light evergreens, among the branches.

Drought.—In dry weather it will be well to give all the plants a good watering (at least half a gallon to each Rose) once a week, either with clear water or weak liquid manure. On the following day the beds should be hoed to keep a loose surface, which will be of the greatest help in preventing the soil beneath from becoming quickly dry again. Another plan is to give each plant a thorough watering with clear water and then to cover over the surface of the beds with a mulching or covering of half-decayed manure. The objection to a mulching, which should never be applied before June, is that many consider it unsightly, and the birds are sure to scratch among it and so scatter the manure over the grass or other paths between the beds.

Insect pests.—Against the foregoing and other adverse weather influences the Rose grower is to a great extent powerless, whereas insect pests, if attacked with promptness and perseverance, can, as a rule, be readily subdued. The great thing is to watch for their appearance and at once proceed to destroy the first comers, and when this is done to continue to harass the enemy until the attack has entirely ceased. It is, as a rule, only when any insect pest has been allowed to obtain a firm footing that there need be any difficulty in getting rid

of it. Good culture is a great help, as well nourished and healthy plants do not suffer so much from insect and other attacks as those that are ill-fed and weakly. The only remedy against all the larger insects that attack the Rose, like caterpillars, grubs, beetles, sawflies, &c., is hand-picking; whereas the smaller ones, like green fly, thrips, red spider, &c., may be best kept in check by syringing. Where Roses are largely grown, a knapsack spraying-pump will be found very useful in distributing and spraying insecticides and fungicides.

Grubs and caterpillars.—The Rose maggot and several other equally destructive leaf-rolling grubs and caterpillars are generally the first pests to attack the Rose in the spring. They will be found curled up in the young foliage, and must be sought for every few days and crushed between the thumb and finger, or much damage will be done. This is not a pleasant occupation, but unfortunately there is no other remedy except it be to pinch off the affected leaves and afterwards burn them or throw them into a strong solution of salt and water.

The next enemy to appear will be the frog-hopper or cuckoo-spit, a little pale green or pale yellow frog-like insect, which will be found hidden in the centre of a small patch of froth deposited either in the axils of the leaves or on the leaves themselves. This, again, must be hunted out and destroyed by means of the thumb and finger, or removed with a small brush and deposited in the salt and water solution before mentioned.

The boring grub.—Holes will be often noticed in the tops of the stems of standard Roses; these are made by this pith-boring grub. As a preventive the ends of standard Roses should be painted with "knotting" at planting time, and the same precaution should be adopted with the standard stocks. If the holes have been already made, a piece of copper wire thrust sharply down them will destroy the grubs; a little putty is used to close the holes afterwards. The same grubs also occasionally pierce the shoots of Roses, and seem especially fond of those made by standard Briar stocks. In this case, as soon as observed, the hollow ends of the shoots should be squeezed until firm wood is met with, and then cut off. In this way the boring grub will be crushed, and the affected part of the shoot removed.

The Rose aphid or green fly.—In some seasons these enemies of the Rose are very numerous and troublesome, and if not frequently destroyed increase very rapidly. Most exhibitors keep green fly under entirely by the skilful use of the thumb and finger. This only shows how easily such pests may be kept in check, if attacked directly they make their appearance and never afterwards allowed to congregate in any great numbers. Occasional sharp syringing with a garden engine with clean water will be found in most cases sufficient. Should this, however, prove ineffectual, the following well known remedy may be used instead. Take two ounces of quassa chips and boil them in a gallon of water, adding a tablespoonful of soft soap before the mixture becomes cold. Or one of the many insecticides in the market may be tried, keeping strictly to the directions supplied with the bottle.

Thrips.—These tiny creatures often injure Rose blooms in hot and dry weather, especially those of the Teas, by giving the petals a brown and bruised appearance. Spraying or syringing with clean water is the best remedy to employ, even at the risk of spoiling some of the existing blooms.

Red spider.—This is another dry weather enemy, and so small as not to be detected with

the unaided eye. It generally attacks the lower sides of the leaves, and if not kept in check causes them to fall from the plant prematurely. The same remedy as for thrips is advisable. Crimson Rambler, when grown in hot or confined positions, is rather subject to this pest. In dealing with large plants like this it will be found a good plan to use a small watering pot with a fine rose, and each evening in dry weather to wet both sides of the leaves by swinging it sharply up and down and across the climber.

Fungoid pests.—Mildew.—Of all the insect and fungoid enemies of the Rose this is, as a rule, the most troublesome to deal with. It appears as a white mould on the foliage, and if not promptly dealt with will quickly spread from one plant to another over the whole collection. It occurs at all seasons, but principally in autumn, when, if not checked, it will prevent the plants from flowering as freely as they otherwise would. Flowers of sulphur is a sure preventive, but each attack must be dealt with on its first appearance, and the application repeated until a cure is effected. A very simple way of applying the sulphur is by shaking it lightly over the affected plants by means of a fine muslin bag the first calm evening after the mildew is detected. This remedy is even more effectual if applied while the dew is still on the foliage in the early morning. Although only the upper surface of the leaves are dusted over it will be found in practice that the action of the sun will vaporise the sulphur and cause the surrounding atmosphere to be impregnated with it. Instead of the muslin bag I now use the "Ideal" Powder bellows, as the sulphur is more quickly and effectually distributed over the plants. These bellows can be obtained of Messrs. W. Wood and Son, Wood Green, London, N. The price is 7s. 6d. Syringing or spraying with the following liquid will also prove effectual, more especially if the under side of the leaves can be wetted with it. To make this mixture half an ounce of potassium sulphide should be dissolved in a gallon of hot water, which should be well stirred as the sulphide of potassium dissolves; when cold the liquid will be ready for use. Warm days followed by cold nights are the most frequent causes of this pest, also a close, muggy atmosphere.

Red rust or orange fungus.—This is much more variable than mildew, and in many gardens is seldom if ever seen, while in others, particularly those on hot and dry soils, it is frequently very destructive to the foliage in the autumn. On its first appearance a few sulphur-coloured spots will be noticed either on the leaves or shoots. In the next stage it increases and becomes a bright orange, ultimately turning black. There is no practical remedy for this fungus, as unlike mildew it vegetates inside instead of on the surface of the foliage.

MOSS ROSES.

"ARE they grown now?" is the question often put to me, and I have to confess that their popularity has waned, although it would not be correct to say they are altogether overlooked. How can anyone slight these pretty and hardy Roses, the very touch of whose leaf, stem, or flower leaves behind a delightful fragrance? Where can we find a more quaintly beautiful Rose than the crested Moss or the snowy whiteness of *Blanche Moreau* peering through a shield of olive green moss? Then there is the handsome, elongated, mossy bud of the *Common Pink*, and the dense growths and abundant blossoms of its rival, *Gracilis*. Little Gem and the *Moss De Meaux* are two miniature Moss Roses which never fail to obtain admirers. Another

beautiful Moss Rose is White Bath, perhaps even more pure in colour than Blanche Moreau. These varieties are the best of the true Moss Roses. There are many others, and some of them good.
P.

NOTES ON HARDY PLANTS.

LINARIA ALPINA.

I GROW many of the Toad-flaxes, but this has always been my especial favourite. From early summer until late autumn the deep purple orange-lipped flowers glow on the wall tops amid the glaucous grey of the spreading foliage, and tiny seedlings spring up around in the chinks of the masonry and along the edges of the gravel paths. The old plants live sometimes through the winter and sometimes disappear; but their death is of no moment, as they are succeeded by seedling plants, and this *Linaria* is perhaps best treated as an annual. Curiously enough, this plant and another lovely little annual, *Ionopodium aculea*, sometimes suddenly die out of gardens where they have seeded and flowered annually for many years. I am very fond of both the *Ionopodium* and this *Linaria* for growing beneath Tea Roses. Now and then I scatter seed of both broadcast over the garden, and such seedlings as result are allowed to remain, since they injure nothing and are charming when they appear in unexpected places.

S. W. FITZHERBERT.

GLADIOLUS VINULUS.

This exceedingly pretty little *Gladiolus* is now in flower. It precedes *G. Colvillei*, The Bride, by a week or ten days. In Nicholson's "Dictionary of Gardening" it is given as a synonym for *G. vittatus*, the flowers of which are stated to be "pink with darker stripes, anthers purple, stem 8 inches to 12 inches high." This is evidently not the plant that I have under the name of *Gladiolus vinulus*, the flowers of which are pure white, with rich carmine markings on the lower petals and the anthers white. My plants are 22 inches in height and bear from four to six blooms, which are 2 inches across on the scape. All who have seen the flowers have been unanimous in admiring them.
S. W. F.

ACHILLEA MONGOLICA.

THIS, to my mind, is one of the very best of the Yarrows or Milfoils. A native of Siberia, it is perfectly hardy, and its single white flowers, about three-quarters of an inch across, are produced in prodigious profusion long before the other species have commenced to flower. Through the whole of May and the early part of June this *Achillea* has been covered with bloom. The flowers are most valuable for cutting, as their purity of colour and simplicity of form render them especially appropriate for indoor decoration. For this they are far superior to the flowers of *Achillea Ptarmica flore-pleno* The Pearl, so largely grown. This species is a very rapid grower, and if not staked will cover a space 4 feet square in two years. The height of the flowering stems is 2 feet, and the plant is easily increased by division.
S. W. F.

ÆTHIONEMA PULCHELLUM.

THIS is one of the prettiest of the whole family of *Æthionemas*, and is now a charming sight on a sunny rock border, where its numerous racemes of flesh-coloured flowers rising above the narrow, glaucous foliage have a very pleasing effect. It is one of the more lately introduced of the race, but proves one of the hardiest as well as the most handsome of the family. I have had my plants three years, during which time they have spread considerably, but are now in danger of being overrun by a vigorous mass of *Androsace lanuginosa*, which is overstepping its rightful boundaries. *Æthionemas* are found in open, sunny spots in mountain ranges in Asia Minor and Europe, and in

the garden the natural conditions of their habitat should be reproduced as far as possible.

S. W. F.

OLEARIA NITIDA.

THIS New Zealand shrub has been in flower with me, and when it attains fair dimensions will, I think, be a decorative object. The small white Hawthorn-like blossoms are about half an inch across and borne freely on loose branching racemes. The leaves are 3 inches in length and 2 inches in breadth, deep green on the upper surface and silvery white beneath. The plant was, I believe, introduced into this country in 1886, but the largest specimen I have seen of it was under 5 feet in height.
S. W. F.

ROSE NOTES.

FELICITE PERPETUE IN BUSH FORM.

A SINGLE plant of this fine old Rose, some 10 feet high and 24 feet in circumference, is now beginning to open its neat little flowers. Even recent additions to the fast growing groups cannot surpass the old *Félicité Perpetue*, and it is really the best one to mingle with *Crimson Rambler*, as they blossom practically at the same moment. Although I would not plant this Rose to grow in bush form instead of as a climber, yet there are occasions when such a plan is useful. For odd corners or to cover a heap of tree stumps such a Rose as this is invaluable, and when in flower is like a huge snowball. The treatment I adopt as regards pruning is to cut away a few of the oldest growths soon after flowering, then the new growths have time to fill up the vacancies. To form a round or conical bush the growths are brought gradually around or bent over, but some shoots are allowed a certain freedom, thus removing any suspicion of artificial training. A few shovelful of manure thrown around the base once a year and a canful or so of liquid manure just before the buds open are all the extra attention the plant receives. There are many other Roses well adapted for this mode of culture and training, but none can surpass *Félicité Perpetue*. One can but wish that raisers will soon give us a perpetual flowering form.
P.

SULPHUREA TEA-SCENTED.

This charming Rose is proving one of the most valuable additions to the sulphur-yellow varieties that we have had for many years. In fact I may say there is no sort that has given so much satisfaction both for its exquisite colour and shapely buds and for the almost beet-coloured foliage and vigorous growth. When massed the general effect of this Rose is white, but on close inspection the stiff petalled buds are of a pure sulphur-yellow, and they are so prettily formed that I am persuaded market growers would find this Rose a useful one.
P.

MME. ALFRED CARRIERE.

I planted this Rose in the autumn of 1902 on an old espalier Pear tree; it has grown all over the tree and bears hundreds of perfect flowers. It flowers all the summer and late autumn. Mme. Alfred Carrière is one of the best Roses for growing on old fruit trees.
J. S.

ROSES ON DEAD PEAR TREES.

There is no better way of showing the beauty of a climbing Rose than the above. I planted Carmine Pillar and Mme. Alfred Carrière in the autumn of 1902; they have both done remarkably well. The Carmine Pillar is planted against a dead pyramid tree, and it has now reached the top, a height of 20 feet, and is at the present time a perfect mass of flowers. These have a beautiful effect in the orchard.
J. S.

SOLEIL D'OR.

This Rose deserves praise for its profuse blooming and golden colour, deepening into a heart of ruddy gold, and for its delicious perfume.
R.

FORTUNE'S YELLOW.

This is one of the best of the early Roses, and if given a suitable aspect no other variety that can

be grown out of doors will give better results; an eastern or western aspect suits it best. I have now a large plant in perfect health that has been under my charge more than thirty-two years. It is growing against a west wall, and at the time of writing (June 13) it is covered with flowers, all of which are of a delicate rich colour. I have also a large plant against an east wall. Here the colour of the flowers is quite as fine. I never protect the plants in any way, the frost often cuts back the long unripened shoots, and this is all the pruning required. A good mulch with rotten manure suits it well, and a plentiful supply of water in dry weather. This Rose does equally as well either on its own roots or worked on the Briar. This is also one of the best early Roses we have for decorative purposes, and when set up with the tips of the current year's growth of copper-leaved Beech it is very beautiful.
T. B. FIELD.

ROSES AT BASTON MANOR.

CARMINE PILLAR.

This has been shown recently in various collections of cut Roses, and although very pretty when gathered, it is only when seen growing that a full estimate of its real value can be made. When recently going through the gardens at Baston Manor, Hayes, Kent, I saw it growing naturally among the lower branches of an old tree. The colour was very bright as seen from the rock garden, the long, spreading branches being covered with the rich carmine flowers.

CRIMSON RAMBLER.

At the time of my visit this was not quite out in flower, but it is planted in various positions, some plants over an archway were covered with large trusses of buds, and in a short time will make a brilliant display. Several large bushes on the stems of old trees were quite as promising. In some positions this Rose runs too much to growth and does not ripen its wood properly, but here planted on a slope with a south aspect it is perfectly at home, making growth, which never fails to mature and flower well the following season.

MME. D'ARBLAY.

This belongs to the Musk Roses, and grown on a pergola produces masses of its delicate flesh pink blooms. These were not open at the time of my visit, but the flowering branches were well advanced, and a little later on will be covered with a wealth of flowers. Mr. Pascoe, the gardener, tells me that this Rose is a great favourite.

COUPE D'HEBE.

This fine old Rose is another favourite. One large bush, which had a good many of its fragrant blooms open, was making good growth. Mr. Pascoe told me that the tree had been growing in its present position for upwards of fifty years, and the only evidence of its great age was the old, gnarled stem.
A. H.

THE MERITS OF OWN-ROOT ROSES.

FOR the working amateur there is no more delightful branch of Rose culture than that of growing them on their own roots. True, it needs patience, but, like most good things, such Roses are worth waiting for, and, once established, they do not soon wear out. There is nothing more easy and simple, provided one sets about it in the right way. In August and September Rose cuttings may be put in out of doors in semi-shade, with their bases resting on sand, and many of them will root freely without more ado. This is the roughest and readiest plan, no doubt, of increasing any particular variety, but it often answers well. Many a good Rose bush has been raised with no greater trouble than this; but there are other and surer methods. All through the year some Rose cuttings are to be

found in my propagating case in one stage or another of development. No artificial or bottom-heat is ever used. The case, of which the top and sides are all glazed, merely stands in an unheated greenhouse, and the even temperature, without drought or draught, suits most cuttings admirably. These are put into small pots, either singly or three together, in pure sharp sand, and kept moist, but not wet. Should the case be full, as it often is, the pots go under bell glasses set on damp sand, which are lifted daily and carefully kept clear of the moisture which condenses on the glass. The cuttings which succeed best are generally those taken off with a heel. If a flower has been cut from the shoot not long before, so much the better, for usually the wood is then just in the right condition for striking. In three weeks or thereabouts it is well to examine the state of the cuttings, which can easily be done without much disturbance. If their bases show signs of a callus they are safe, and are sure to put out strong white fibres very shortly. If, on the other hand, there should be the least decay, there is nothing for it but to throw them away and try again. Rooted cuttings are shifted singly into larger pots as they require it. When strong enough they stand out of doors for a time, but receive the shelter of a frame or unheated orchard house during the winter. Their ultimate destination, however, in this garden is mainly for flowering in tubs -- a delightful plan for Roses on their own roots, for they can be returned to garden quarters when their beauty for the time being is over. Only

yesterday a dozen or more splendid flowers, though past their best, were cut from a Catherine Mermet grown in a tub, where it has been for two seasons, and there are more buds to open. The mother plant was struck, a good many years ago, in water in a little brown jug set on a sunny greenhouse shelf, one of my first experiences in the pleasant art of Rose growing.

The beginner should try his 'prentice hand with the old-fashioned pink China Roses, for these root easily and quickly. For tubs nothing can be more charming. They are useful, besides, for a variety of purposes, and are never out of place. The tubs may be set on a low terrace wall or ranged along a broad garden path; in fact, there is no end to the value of these serviceable Roses grown in this portable fashion, for they go on flowering until November, or even later. They respond well to the extra attention of being under glass during winter, but are hardy enough to stand out of doors, if more convenient, in any sheltered spot that can be found for them.

Tea Roses, Noisettes, Bourbons, and Chinas of most sorts strike freely under the above treatment. Crimson Rambler roots readily from "eyes" in the spring, and probably other Roses of that class will do the same with equal freedom.

It is only fair to confess that some Roses do not succeed at all upon their own roots, but one gains one's experience by failure as much as by success. It is doubtful whether any owner of a garden thoroughly enjoys his Roses who is unable or unwilling by personal effort to undertake the trouble of cultivating them.

K. L. D.

THERE is much to be said in favour of own-root Roses, and very little against them. No one who has seen the luxuriant growth of an own-root Rambling Rose can ever desire any other. How freely the new growths break from the base, compelling the cultivator to cut away the old wood to make way for the new, and by so doing keeping the plant in a youthful

large plants to start with. If a little patience were exercised there would in the end be better results. Provided the soil is well prepared, an own-root plant, if thoroughly healthy and possessing an abundance of fibrous roots, will make remarkable progress in a very short time, even though small at first.

To anyone possessing a hot, dry soil, own-root plants are by far the best to plant. Procure well ripened pot-grown plants in May or September. Plant carefully and mulch with decayed leaves and old Mushroom-bed manure, and there will be no disappointment as to the result. Then if a severe winter does come, and top growths are injured, it is very comforting to know the plants will break again from beneath the ground.

We often read of mildew and its antidote, but I believe if own-root plants were more grown there would be less mildew, which so sadly mars the most beautiful rosery. Then, again, how well adapted own-root plants are for cultivating upon shallow benches under glass.

The possibility of controlling and feeding the myriads of fine roots which such plants produce near the surface is evident. I had the pleasure of seeing a number of such Roses last autumn, and the growth the yearling plants had made, aided by liberal applications of bone-dust, was remarkable. Where the mistake has been made is in the insertion of weakly cuttings.

Nothing but the best wood, with healthy foliage, should be put in as cuttings. Then we may expect quality of plant and blossom. Early spring is the best time to insert cuttings, either plunging the cutting pots



ROSES OVER A STONE WALL.

flowering condition. I am persuaded we shall sooner or later find that Rose plants upon their own roots will be chiefly grown. Perhaps this will be more especially the case with bedding or massing Roses, also those for hedges, and all that are grown in the free rambling way, draping and garlanding trees, pillars, and arches with their wreaths of blossom. We shall not then find, as is now too often the case, strong growths of the stock flourishing instead of the desired variety. I saw recently a wall partly covered with the De la Grifferaie Rose, a variety of *R. multiflora*, much used as a stock for the Dijon Roses. Now this stock is all very well in its place, that is, the wild garden; but to give up a wall to its culture is simply a waste of valuable space. Where suckers like this do intrude I usually bud them with other good sorts, but I should never think of allowing them to obtain possession at the expense of the cultivated variety. To avoid this taking place one must plant own-root Roses. Unfortunately, there is a desire for extra

in bottom-heat upon a hot-bed or in the propagating frame. Should neither be available, pits with hot-water pipes could be used, standing the pots upon slates placed over the pipes and plunging the pots in leaves. Roses may be freely struck outdoors in early September. A piece of land trenched the year before, and which has had a light crop since, is an ideal spot. This should be situated well in the open, but sheltered from north and east. Insert cuttings about 8 inches long, bury them fully 6 inches in the ground, and stand the ends upon some sand or other gritty material. Cuttings also root freely if placed under bell glasses during July. The cuttings are made from similar wood to that used for budding. Retain foliage and insert in very sandy soil. Shade the glasses and sprinkle the foliage at intervals of one hour during bright sunshine for the first ten days. Raising own-root Rose is a very interesting practice, and it is to be hoped that it will be carried out with enthusiasm in the future.

PRACTITIONER.

ROSA POLYANTHA AND VARIETIES.

IN the years to come we shall, I have no doubt, look back upon the introduction of *Rosa polyantha* as a great boon. Botanists make *R. polyantha* a variety of *R. multiflora*. There is, however, a great difference.

Many of the varieties of *R. multiflora*, such as *De la Grifferaie*, *Laura Davoust*, and *Crimson Rambler* are double. The true *R. polyantha* has immense and dense clusters of white single Blackberry-like blossoms that are so abundantly produced as to give the plant a marvellous decorative character for a few weeks. To see this fine Rose in its glory one should plant it where its branches may fall outward and overhang a rockery or some old roots or stumps of trees. It is also a grand plant for the wild garden. When we receive a beautiful acquisition like this one is apt to wish that the season of flowering were more prolonged. Perhaps it is not too much to expect that our hybridisers will eventually endow this tribe with a perpetual flowering character, as they have with the dwarf forms.

If so their value cannot be over estimated. We have seen how amenable they are to cross-fertilisation. In *Aglaia Herr Lambert* has given us a glorious rampant and hardy climber, yielding immense clusters of double yellowish white blossoms. This was achieved by using *Reve d'Or* as a pollen parent. In like manner the pink Rambler (*Euphrosyne*) and white Rambler (*Thalia*) were obtained by crossing *R. polyantha* with the low growing *Polyantha Mignonne* and *Paquerette* respectively, so that we may reasonably look forward to some fine novelties in this direction—if not

perpetual, at least we shall obtain some brilliant colours. A single crimson or scarlet of this type would be much appreciated. Doubtless many readers of *THE GARDEN* had the pleasure of visiting Kew Gardens last month when so many beautiful species were in bloom. They will not have forgotten the grand masses of *Rosa polyantha simplex*, to give it the correct name, growing in the beds and also in the Rose

In 1886 *M. Bernaix* introduced a most showy single white Rose, namely, *R. polyantha grandiflora*. Judging from the waxy texture of the petals and the purity of the blossom, this variety has much of *R. indica* in its constitution, and its rather tender nature also points to this conclusion. Few single Roses have been more glorious this summer, and it has appeared in almost every collection of garden Roses at our shows. The real beauty of this and kindred Roses is seen when they can be thoroughly isolated. A space of 25 square feet will be none too much to allow for one specimen grown in a natural manner. Just now such a plant is beautiful, although flowerless. The fine thick stems, some 2½ inches in circumference, are a rich mahogany colour, and the growths long and arching. The shiny foliage, not unlike that of *R. sinica*, although not equal to it in glossiness, is no small attraction, contrasted as it is with the dark coloured wood.

A very charming kind, intermediate between the two already mentioned, is *R. polyantha Thunbergi*. It resembles in blossom a variety known as *Moschata himalaica*. It is chiefly remarkable for its wealth of golden stamens. I have not tried it under the same conditions as *R. polyantha*, but if it would blossom as profusely when allowed to grow as a huge bush as does the type this kind would be of no small interest and value to lovers of single Roses. All three sorts named bear bunches of small globose fruit of an orange shade of colour.



ROSA MULTIFLORA (POLYANTHA) SIMPLEX. (From a photograph by Miss Willmott)

dell. In the latter place it was grouped most naturally and in close conjunction to the delicate pink Dawson Rose, another hybrid of *R. polyantha*, a variety, by the way, that is worthy of more extensive cultivation, especially for covering old tree stumps or growing in the front of shrubberies.

A variety that always commands admiration when found blossoming profusely (as it will do if allowed to become established) is *Claire Jacquier*, introduced by *M. Bernaix*, two years later than *R. p. grandiflora*.

Here, again, we have not that absolute hardness we should like, so that in planting a

sheltered spot should be allotted. Provision must be made for its wondrously rapid growth or it will quickly suffocate everything else around. I consider *Aglaia* will be more grown than the latter, because of its greater hardiness, and really there is little difference in the flowers; perhaps those of *Claire Jacquier* are more richly shaded with orange yellow.

PHILOMEL.

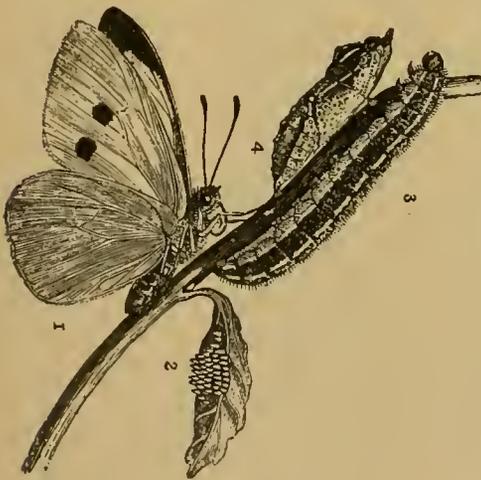
WORD-PHOTOGRAPHS OF A JAMAICA GARDEN.

I.

ROUGH stone steps ascending. On the left a dry wall waist high, decreasing in height as the steps ascend. A vigorous sweet-leaved *Geranium* fills the bottom corner, where another wall meets this one at right angles. It is planted on top of the wall, and hangs down, completely hiding it. Towards the end of the second step the wall escapes from this leafy covering, and shows Boston Fern at its base, and in the courses Ivy-leaved *Toad-flax* in flower dropping down to meet it. On the level top of the low wall fibrous-rooted *Begonias* of several sorts, making a display of graceful small flowers, white and red. Others conspicuous for their leaves: *B. olbia*, glowing with ruddy underside, the face of matchless tints of lustrous green; *B. nutallica*, and one with mottled leaves like *Cyclamen*. Behind, the gorgeous ever-flowering *B. rubra*, erect, strong-caned. In and among all these the salmon variety of *Impatiens Sultani*, and in the background pure white *Petunia* and orange *Day Lilies*. Coming forward to the path again at the fifth step, *Stachys coccinea*, covering the wall for a breadth of two steps, hanging over and encroaching on the pathway. Overhead an Ostrich-feather Palm (*Chrysalidocarpus*), whose stems, covered with bloom and coloured like a half-ripe *Greengage*, alone come into the picture.

II.

A circular dipping-tank with fat goldfish. Ferns and *Cyprus* around it, except at the two dipping places. Through it runs a copious rill, emerging as a fall below. I stand rather below the tank, and look over it to a patch of salmon *Impatiens* mirrored in the water. It is under a *Richardson Rose*. Both are always in flower. To



WHITE CABBAGE BUTTERFLY.

1. White Cabbage Butterfly (*Pieris brassicae*). 2. Eggs.
3. Caterpillar. 4. Chrysalis.

the left, on ground sloping steeply upward, a breadth of handsome two year old *Lavender*, through which push *Hippeastrums* (creamy pink), *Bermuda Lilies*, and white *Vincas*. Behind this *Plumbago capensis*, just below which is a mass of white *Petunias*, and a few *Carnations* of palest pink. Slightly raising the eyes so that the tank is

almost lost comes the low-toned brown-pink roof of *Cedar shingles*, far behind which, high up the hill, is an *Oleander*, white, with a suspicion of warm tinging, tall and magnificently flowering, and behind that again the noble native *Pampas Grass* (*Gynerium saccharoides*) at the very top of the garden.

III.

A wall thigh high. A rill of water runs along its top. The bed behind is slightly depressed, and thus kept constantly moist. The English Water Forget-me-not lines the rill and spreads backward among *Arum Lilies*. Behind these, where the ground is drier, *Spider Lilies* (*Hymenocallis caribæa*), backed by a masoned wall waist-high of handsome grey stones, *Ferns* and *Ivy-leaved Toad-flax* in the crevices. *White Verbenas* straggle among the *Lilies*, strong-growing, but hardly holding their own against *Tropæolum lobbianum* of palest yellow (*Moonlight*), which is repeated again on the wall below the rill. Two or three of these *Tropæolums* are planted in the path. A short pergola, where path and rill make a right-angled turn, is covered with a dense growth of *Solanum Wendlandii* and *Allamanda Schottii*. This is known as the blue-and-yellow corner.

Port Royal Mountains (2,000 feet). W. J.

INSECT PESTS.

THE CELERY FLY (TEPHRITIS ONOPORDINIS).

GRUBS of this fly injure the leaves of *Celery*, *Parsnips*, and other umbelliferous plants by feeding on the interior substance of the leaves; the leaves of these plants towards the end of the summer often have a withered and blighted appearance, which is caused by the action of the grubs working their way between the skins of the leaves. On holding one of the leaves so that the light shines through it the position of the grub is easily seen. The grubs may be found in the leaves from the middle of June until the beginning of December. If the attack is noticed when the leaves are young, a firm pinch, but not hard enough to injure the leaf, will kill the grub. Later on, when the injury is more extensive, the entire leaf had better be cut away and burnt, as it is of little use then, and will only decay before the others.

There is more than one brood of this insect, so that it is most desirable to prevent the grubs of the first brood from undergoing their transformations. No insecticides have been found of any use in killing the grubs, but spraying or syringing with some soapy insecticide when the flies are wanting to lay their eggs is useful in preventing their doing so. The difficulty is to know when to make the application, for the flies may be found from the beginning of June until the end of July. When full grown the grubs bury themselves in the ground and become chrysalides. After the crop has been taken off, the upper part of the soil should be buried as deeply as possible, so as to render it impossible for the flies to reach the surface when they leave their chrysalides. Every bit of the crop that is left should be burnt. The fly is a pretty little brown insect with brilliant green eyes; it measures nearly half an inch across the wings, which are clouded with yellowish brown markings.

WHITE CABBAGE BUTTERFLIES.

(*PIERIS BRASSICÆ* AND *P. RAPÆ*.)

THE caterpillars of these two common butterflies, besides attacking *Cabbages* of various kinds, *Cauliflowers*, *Turnips*, &c., are very destructive to the leaves of *Mignonette*, *Tropæolums* of various kinds, and *Horse-radish*. When plants are in-

fest, pick them off by hand, unless the pests are very abundant, when the plants might be sprayed with paraffin emulsion or salt and water, or *Pyrethrum powder* might be sprinkled into the heads of *Cabbages*. The butterflies may be caught in nets. The chrysalides may often be found on posts or palings, and under the eaves of outhouses, and should always be destroyed. These butterflies are too well known to require description, and the two species may be easily distinguished from one



THE CELERY FLY.

1. The Celery Fly (*Tephritis onopordinis*). 2. Grub. 3. Chrysalis.

another by their unequal size. The *Cabbage butterfly* is considerably larger than the other, measuring about 3 inches across the wings when fully expanded, while the *Turnip butterfly* is not more than 2 inches. The caterpillars of the former species when full grown are 1½ inches in length, of a pale blue or green colour above and yellow on the under side, there being down the middle of the back a yellow stripe. There are various black spots, dots, and hairs scattered over the body. The caterpillar of the *Turnip butterfly* is about 1 inch long and of a dull green colour, with a yellow stripe down the back and one on either side; it is so covered with short hairs as to be quite velvety.

SOME WICHURAIANA ROSES FOR DWARF PILLARS.

IT seems almost impossible to exhaust the ways of growing *wichuraianas*. They are employed as weepers, as trailers upon banks, for low hedges, and also for pergolas, &c., but I am not sure that I have seen them advocated for use in restricted pillar form in large beds of *Teas*, *Hybrid Teas*, or *Chinas*. If anything the vigour of these *Roses* is embarrassing, but it is not at all necessary to allow more growths than seem advisable. What I now advocate is to plant a few of these *wichuraiana Roses* as dot plants, supporting the growths by a slender stake from 3 feet to 4 feet high. A valuable feature of the group is their inclination to flower well down to the ground, so that, though pruned back, one does not lose the blossom thereby. The growths should be cut back to the top of the sticks and kept tied upright. Any growths that spring from the base and which are not required may be cut away.

The various sorts if pruned in the manner indicated will be a mass of blossom from base to summit, and many of the varieties resemble *Tea Roses* in their colouring and fragrance. I can especially recommend *Alberic Barbier*; the lovely canary yellow buds and large *Lamarque*-like open flowers make it a most useful variety. On one plant 2½ feet high I counted twenty full-sized blossoms, and there were several buds to unfold. How pretty such a variety would appear planted in conjunction with, say, *Marquise de Salisbury* or *Camoens*. Some varieties of this group are rather later in blooming than others; for instance, *Dorothy Perkins* is not yet out, so that this should be planted in a bed with one that is fairly continuous in flowering. The varieties named below blossomed this year about the second week in June, so that they are very suitable for planting with early *Roses*. One of the best is *René André*, saffron and orange-red; *Paul*

Transon, large clusters of rose and pink blossoms, double, and sweet; Gardenia, fine yellow, double; Jersey Beauty, single, cream; and Ruby Queen, quite a large Rose of a delightful ruby-carmine colour, with a distinct white base to the petals. For a similar purpose the following Rambler Roses bloom freely as 3 feet high plants, namely, Electra, Leuchstern, Thalia, Euphrosyne, Psyche, and Claire Jacquier. P.

MR. CHARLES TURNER'S NURSERY AT SLOUGH.

THE Rose is invading the garden in no uncertain fashion, and it is welcome. It brings a fresh and wholesome sweetness wherever it is placed, and as the years pass by this invasion will become more general still, as the worth of varieties for pillars and hedges is more widely recognised. These thoughts occurred to mind when looking through the collection of garden Roses in the nursery of Mr. Charles Turner at Slough. This group is together and comprises the garden varieties and hybrids which delighted us in childhood days and those recently acquired by French and English raisers. There is the old Moss with its pink flowers hiding in a veil of green, there the rosy Celestial coquetting with the crimson Grüss an Teplitz, and peering above all the wonderful pillars of the wichuraianas, wreathed in flowers and filled with a rare fragrance. It is rather of Roses for hedges we would now write, and the remarkable crimson Damask raised by Mr. Turner suggested these simple notes. It is an ideal Rose to form a low hedge, the growth bushy and strong, the leaves of a pleasant shade of green and in part hidden by flowers that for brilliancy of colouring and profusion force themselves on the most listless observer. They are single, 5 inches wide, and bright crimson, a shade of colour without the purple tinge of the old Damask, and very sweet. The large flaunting petals assert themselves above the leaves to show their beautiful colour, that seems to have drunk in the rays of a summer sun. Psyche, a seedling from Crimson Rambler, is, as the illustration of it suggests, an excellent hedge Rose, and of course Crimson Rambler is in all places and in all forms in this nursery. A hedge of it is a bewildering glare of crimson trails of colour, like tongues of flame, and, whether the shade is liked or not, there is no question that Turner's Crimson Rambler is one of the most remarkable Roses that have been introduced during recent years. Against this a hedge of Purity is a refreshing relief. This is almost a perfect hedge Rose, the flowers white, as the name suggests, sweetly scented, and they burden every shoot—a Rose fair to look upon, though not too well known. The Penzance Briars were in great force, Amy Robsart, Anne of Geierstein, Jeannie Deans, Lady Penzance, Lord Penzance, Meg Merrilees, the Japanese Roses, Lucida plena, Persian Yellow, Sinica Anemone, and many others too well known to record.

The wichuraiana hybrids were smothering many tall poles with their wonderful growth. We think the queen of this group is Récé André. The flower is described as half-double in books and catalogues, but it is really more than this, and the colouring is soft yellow shaded with salmon-red, a peculiarly beautiful association, and the fragrance is strong and sweet. It is a climbing Rose to make a note of for autumn planting. Alberic Barbier, Auguste Barbier, Jersey Beauty, Pink Roamer, and Dorothy Perkins were all represented. The Rose for all gardens is Dorothy Perkins. It is an American

introduction, a cross between wichuraiana, the type, and Mme. Gabriel Luizet, the flowers double, shell-pink in colour, and very sweet. It is a Rose for pergolas, running over old trees, arches, and similar places. Carmine Pillar was a mass of colour, and we noticed also Aglaia, Ards Rover, Electra, and Leuchstern of the newer Roses, and a host of old favourites, such as Ruga, Aimée Vibert, Mme. Alfred Carrière, Rêve d'Or, Alice Grey, Dundee Rambler, the Boursault Morletti, thoresbyana, and splendens. It is refreshing to see these fine Roses in so great a variety, the Roses that filled the old gardens of England with their fragrance and colour.

There is the same completeness in the collections of dwarfs and standards of all groups of the Hybrid Teas. We were shown in full beauty Antoine Riviere, Aurora, Florence Pemberton, Killarney, Liberty, and Rosamane Gravereaux, which is a soft rose-coloured flower and vigorous in growth. Among the newer Teas are Comte Amédé de Foras, which has yellow flowers touched with salmon and pink, a very promising variety; Lady Roberts, Mme. Antoine Mari, Mme. Jane Dupuy, and Mme. Jules Gravereaux, which is delicate salmon in colour. In these days of Tea, Hybrid Tea, and

GARDENING OF THE WEEK.

INDOOR GARDEN.

RAISING CYCLAMEN FROM SEED.

WITHIN the next few days the first batch of seeds will be sown, and the second from three to four weeks later. From the earliest sown we have for years obtained the best success. The seeds are slow to germinate, unless they are new and of one's own saving, in consequence of which the young plants raised from seeds that are sown late have little opportunity to make progress before the dull, dark days of late autumn. The leaf-stalks of the young seedling plants then become drawn and unable to support a well-developed leaf, while the bulbs also fail to develop properly.

Placing the young plants near the glass, and affording them all the light possible, keep the leaf-stalks short and ensure the satisfactory development of both bulbs and leaves. Sow the seeds in pans or pots, half filling these with crocks for drainage; over this put a layer of moss, and then



HEDGE OF ROSE PSYCHE.

choice Roses there is some danger in the fine Hybrid Perpetuals being overlooked, but we should be sorry to lose sight of flowers that possess so much interest and charm. Mr. Turner has large wreaths of Captain Christy, Captain Hayward, Mme. Gabriel Luizet, Mrs. John Laing, Mrs. R. G. Sharman Crawford, Ulrich Brunner, and other leading varieties whose names are household words in the domain of flowers.

More might have been written of this famous nursery in the time of Roses. The collection here is one of the most famous in England. Visitors to the Royal Horticultural Society's show in the Temple Gardens in May, and to the National Rose Society's display in July, will have pleasant recollections of Mr. Turner's exhibits. Roses in pots form a great feature at Slough, and in May these are in perfection.

At the moment of writing the Pinks, for which this nursery is famous, are in flower. Among them were the laced varieties and the pretty double Little Gem form of Dianthus fragrans. We wish more of the Pinks kept their petals within the calyx.

some of the rougher portion of the compost, and finally fill to within 1 inch of the top with that portion of the compost that has been passed through a quarter of an inch sieve. Equal parts of light loam and leaf-soil and a little coarse sand form a capital compost. Before sowing the seeds soak the soil with water applied through a fine rose. Sow the seeds thinly and press them well into the soil, being careful afterwards not to cover them too deeply. The final watering should be given through a fine rose, and the pans afterwards placed in a close, moist position, and in a temperature of 65° to 70°. Shading from strong sunlight is necessary until the young plants are well through the soil.

COLEUS.

Cuttings inserted now will strike root readily, and will soon grow into useful sized plants (which should be kept in small pots) for decorative work during the months of August and September. Strong, high-coloured shoots can be obtained now as cuttings from specimen plants. Insert them singly in 2½-inch pots and place them in a close propagating frame, or plunge them in a hot-bed

among cocoanut fibre, and afford them shade from the midday sun.

WINTER-FLOWERING PELARGONIUMS

are now being removed to their flowering pots. Put them back for a few days in the cold frames, which are kept close; air being admitted, and gradually increased, until later the lights are removed altogether. At this time much care in giving water is needed. A few of the earlier potted may be ready for placing on a bed of sand or ashes in the open, the plants in this case being given plenty of space for the proper circulation of air about them. It is a good plan to make provision for placing lights temporarily over them in the event of continued wet weather.

J. P. LEADBETTER.

Tranby Croft Gardens, Hull.

KITCHEN GARDEN.

FRENCH BEANS.

THE last sowing of the season may now be got in. It is of little use sowing after this date in the northern counties. Choose a south exposure and good land. If the seeds are steeped a few hours in water several days will be gained, as in dry weather germination is slow. Sow in rows 18 inches apart, and when the plants come up give water in dry weather, as this sowing must be hurried on to ensure fruit before the cold nights set in. A sowing about a fortnight hence should be made in pots, standing them out of doors till early in September, when they may be placed in a cool house. Inspect growing plots of Beans, and thin the plants again where they seem too thick.

SPRING CABBAGE.

It is well to be in good time with this most important vegetable. Most gardeners sow at a fixed date that is found to suit their locality. By sowing rather early this leaves time for a second sowing should accidents happen. From the 12th to the 20th of this month is a suitable time for the first sowing. Sow on a light, open border exposed to the sun, as rapid growth is necessary. The seeds may be sown broadcast, and should be coated with red lead or securely netted, chaffinches being very destructive to Cabbage seeds. Many fine sorts of Cabbage for thus sowing are now on the market. Ellam's Early or Edinburgh Market are both most suitable varieties, quite hardy and turning in very early.

SHALLOTS.

Where these are now ripe they should be lifted and laid out thinly on wooden boards to dry. Care must be taken not to pull them up too soon; the foliage will be a safe guide. The clusters may be left as they have grown, dividing them when quite dry. Store afterwards in a cool, airy room. Garlic may be treated in the same manner, but may need to be left in the ground for some time yet.

ONIONS.

Now that the weather has become hot and dry a careful watch must be kept. Transplanted Onions do not seem so liable to the attacks of the fly as those sown in the open in March. Give the plot a dressing of soot and some good fertiliser, hoeing it in with the Dutch hoe. If the fly has already made its appearance the affected plants should be pulled up and destroyed. If the bulbs of spring planted Onions seem to be rather deep in the soil some should be drawn away. Liberal dressings of manure and soot are necessary for this class of Onions if extra large or exhibition roots are required.

*Hopton House Gardens,
South Queensferry, N.B.*

THOMAS HAY.

FLOWER GARDEN.

THE seedling plants of such spring bedding subjects as Wallflowers, Silene, &c., are now sufficiently large to be lifted from the seed beds and transplanted. This work should be done before the young plants become drawn and weak, else when the planting season comes round they will not be sufficiently large for the purpose. Transplanting at this time of the year entails a check to the

growth, but if the nursery beds are well dug and a thorough watering given after planting new roots will soon be made and growth recommence. If any particular Polyanthuses were marked for seed-saving these should have an occasional watering, and the seed may be sown as soon as ripe.

MIGNONETTE.

At the time of writing there has been practically no rain for a fortnight, and the hot, dry weather has every appearance of continuing. If such should prove to be the case all the Mignonette sown in sunny positions will quickly be exhausted, and a sowing in a moist spot, such as under a north wall, will produce an acceptable supply of this fragrant and indispensable flower. Sweet Peas which were sown in the autumn are now flowering freely, and require longer sticks, which should be slender but strong. All seed-pods should be closely removed, and a good mulching will save a deal of labour in watering and give better results.

NARCISSUS.

The Pheasant's Eye and other varieties of Narcissus have now ripened their foliage, and if lifting is considered to be necessary it should be done forthwith. If the bulbs are to again occupy the same place deep digging and heavy manuring will be essential. When replanting especial care should be taken with the double Pheasant's Eye to keep the bulbs at a medium depth, for if planted at either extreme, blindness is almost sure to be the result.

DAHLIAS.

Although a row of Dahlia stakes is a very unsightly object, it is not wise to delay the staking too long, for gusty weather, and at times even a heavy fall of rain, is sufficient to wreck many of the finer plants. Tying should be done firmly, taking care not to enclose any of the leaves. The Dahlia delights in and repays for copious waterings and frequent applications of weak manure water. If large flowers are required disbudding must be practised, but due allowance must be made for the depredations of earwigs. The dwarf bedding Dahlias, such as the brilliant Rising Sun, will not, of course, require either staking or disbudding. The variety named is most valuable for filling a large bed where bright colour is required.

FLOWERING SHRUBS.

As they pass out of flower any little attention these may require in the way of staking or pruning should be given. Unless they receive an occasional pruning plants of the larger-flowered Philadelphus become very thin. The Weigelas (*Diervilla*) will stand severe pruning.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

FRUIT GARDEN.

MELONS.

PLANTS in pits and frames which are carrying heavy crops of fruit require liberal supplies of liquid manure. A light top-dressing of loam and some quick-acting fertiliser will also help them, unless the plants are making too much growth, when no artificial manure should be given. Very little water will be required when the fruits are approaching ripeness, especially if the roots have a deep bed of fermenting material to root in, and liquid manure must be withheld altogether or the flavour will be impaired. Only sufficient water should be given to keep the foliage from flagging. Do not hurry the fruits at the finish, as much air and little moisture are necessary to obtain good flavour. Keep all laterals pinched off Melons growing in frames, and so give the main leaves full exposure to light. Syringe and close the frames early on bright afternoons, care being taken not to syringe the plants overhead in wet or unfavourable weather. Raise the fruits by placing on inverted flower-pots, and place fresh fermenting material round the frames of later Melons as required for keeping up the heat necessary to finish the fruits. Where late Melons are required, and good houses are at command with plenty of top and bottom-heat, a late sowing should now be made of some quick growing and early maturing variety.

Veitch's Late Perfection is an excellent variety for late work, and Hero of Lockinge is always good. Plant out in soils recommended in previous calendars, and allow the plants a little more space to obtain good healthy foliage. Give a night temperature of 70° to 75° and 85° by day, with free ventilation on bright days.

CUCUMBERS.

Cut away any old growth from Cucumbers that show signs of weakness through overcropping. Top-dress with loam, leaf-mould, and some well-rotted manure. Applications of weak liquid manure and occasional sprinklings of Thompson's Vine Manure will be beneficial. Seeds sown now for autumn fruiting will save the winter plants; the latter may be grown more sturdily and cropped lightly until the fruits are required.

APRICOTS.

Finally thin the fruits of these as soon as they have finished stoning, and do not allow the trees to carry too heavy a crop. Remove all badly placed fruits, or any likely to be damaged by the wire or nails, and untie the shoots where necessary. Syringe the trees every afternoon, and give them a good soaking of water when thinned, afterwards mulching them with horse manure according to the vigour of the trees. Peaches and Nectarines must be finally thinned, leaving the fruits evenly distributed over the whole tree; remove a few leaves or push them back to fully expose the fruits to the sun.

Impney Gardens, Droitwich.

F. JORDAN.

CORRESPONDENCE.

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

DECADENCE OF PINE-APPLE CULTURE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having charge of one of the comparatively few private British gardens in which the Pine-apple is still cultivated. "H. A. P.'s" note upon this subject was of interest to me. I fully agree with your correspondent that it is a pity that the culture of this fruit has so greatly gone out of practice, and can confirm his remarks about the flavour of foreign-grown fruits as compared with those ripened in British gardens. This is undoubtedly owing to the fact of imported fruit being necessarily gathered before perfectly ripe, for it is said that those left to ripen upon the plants are of excellent quality. The smooth-leaved Cayenne is, I believe, the principal if not the only variety grown abroad for exportation, owing probably to its excellent keeping and travelling properties, and this variety, even when grown to a high degree of perfection in our hot houses, cannot be said to compare favourably in point of flavour to a good Queen, especially when the latter is matured during the summer. The Cayenne is a most desirable winter fruiter, and together with Charlotte Rothschild more easily affords a successional supply than the Queen variety.

There exist many wrong opinions respecting the culture of the Pine-apple, one of these being that it is excessively expensive to produce as compared with other fruits. The following particulars will perhaps help to dispel this error. During the present time (June, 1904) we are cutting fairly good Queen Pine-apples from a small house, cut from plants raised from suckers inserted in December, 1902. Thus ripe fruits are being cut from plants seventeen to eighteen months old, and as the plants are arranged slightly less than 2 feet apart a considerable weight of fruit is produced in a comparatively limited space. Houses for Pine culture need not be of large dimensions, and provided the pathways are sunken, so that the beds in which the Pine plants are plunged or planted, are on a level with the surrounding ground, it does not take more than an ordinary amount of artificial heat to maintain a proper degree of warmth. As

an addition to the dessert the Pine-apple is invaluable, a large table arranged in the usual elaborate way is not complete without this noble fruit. T. COOMBER.

Hendre Gardens, Monmouth.

THE PEAR GNAT MIDGE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This has made its appearance in quantity, and I am afraid it will ruin the prospects of a splendid crop of fruit. For the benefit of those who have not had experience of this destructive insect, I should like to give a short description of the appearance of the Pears which are affected. My suspicions were first raised by noticing so many badly formed fruits, many of these were contracted, and in other cases had large swellings or excrescences. Upon cutting them open I found a number of small brownish grubs or maggots. A few days later I noticed that many of the Pears had the appearance of being scorched on one side and that many had fallen. I at once referred to Miss Ormerod's handbook of insects, and there I found an illustration of the insect and affected fruit. It is stated that the winged insect pierces holes into the flower buds before it opens, and lays ten or twelve eggs, the eggs are very quickly hatched in warm weather, and the grubs begin to eat their way into the fruit, on which they feed until the latter is completely destroyed and falls. At the rate the fruit is falling here, not one will be left in a few days' time. I am having these collected and placed in the fire as fast as they fall. It will be noticed that syringing is of very little use, as the mischief is already done; neither do I think anything could have been done earlier in the season by syringing. Had I have known that this insect existed in these gardens, and the little history I have gathered from Miss Ormerod's manual, I would have moved all the soil from beneath the trees during the autumn and winter, for this seems the only thing to do. When the fruit falls to the ground the insects crawl out and enter the soil and form a cocoon, from which they emerge early in the spring and begin their work of destruction. As this insect has the power of flying considerable distances every gardener should endeavour to destroy as many as possible. A dressing of kainit or muriate of potash is recommended as being destructive to this insect in the cocoon stage.

Cirencester.

T. A.

THE PERNICIOUS SPARROW.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—During the past spring I have noted in the pages of THE GARDEN the customary complaints of the mischief wrought by the house-sparrow, but have regretted to remark that many of the writers appeared almost apologetic in their condemnation. It cannot be too widely recognised that the house-sparrow is a pest, and that the interests of all connected with the land, be they farmers, gardeners, or labourers, lie in the direction of its extermination. Many there are, doubtless, who think that though the sparrow does harm in one direction, he does good in another. To those I would recommend the perusal of a little book, entitled "The House-Sparrow," by Mr. W. B. Tegetmeier and the late Miss Eleanor Ormerod, published in London five years ago by Vinton and Co. At the time of its publication it was exhaustively and appreciatively reviewed in these columns. The authors, who have earned the respect and confidence of the zoological and agricultural worlds, lay before their readers the result of an exhaustive enquiry into the harm done by the sparrow, from evidence collected from all parts of the United Kingdom and abroad. We learn that the amount of grain consumed annually by sparrows in the British Isles "may be estimated, without fear of exaggeration, at from one to two millions sterling in value." A case is quoted where, in a locality that formerly abounded in cornfields, Wheat culture has been entirely given up on account of the increase of sparrows. Many instances are given of the damage done to gardens by this bird. The Rev. W. Wilks, hon. sec. of the Royal Horticultural Society, states that in January, 1898, "the

sparrows cleared off all the bloom buds on the Gooseberries at the society's garden, and attacked the Plums in February," and adds, "our superintendent despairs of any crop at all." Numerous cases are mentioned of the wholesale destruction by the sparrow of Crocuses, Primroses, Polyanthus, Violets, Lobelias, Lettuces, Green Peas, and Red Currant and other fruit buds.

One of the greatest evils of the sparrow infestation, but an evil likely to be overlooked by the non-observant, is the driving away of insect-eating birds. The adult sparrow is not an insect-eater, one of many proofs of this fact being that at Washington, U.S.A., at a time when the city trees were seriously infested by four species of insects, only two insects were found in the crops of 300 sparrows killed for dissection. I know villages which the martins have now entirely deserted owing to the sparrows appropriating their nests year after year. Last year I found sparrows tearing the top off a wren's nest, the broken eggs being on the ground below. This year a spotted flycatcher's nest has been appropriated by these birds and used as a platform for straw. The substitution of one bird for another may appear a matter of small moment to many, but the birds driven away spend every hour from dawn till twilight in the capture of insects in our gardens and around our dwellings, whereas the sparrow is useless as an insect-destroyer. He will eat Gooseberry buds but not the Gooseberry caterpillar. The following is a summary of a table drawn up after the contents of the stomachs of 694 sparrows were examined.

"About 75 per cent. of an adult sparrow's food during its life is corn of some kind. The remaining 25 per cent may be divided as follows: Seeds of weeds, 10 per cent.; Green Peas, 4 per cent.; beetles, 3 per cent.; caterpillars, 2 per cent.; insects which fly, 1 per cent.; other things, 5 per cent. In young sparrows not more than 40 per cent. is corn, while about 40 per cent. consists of caterpillars, and 10 per cent of small beetles."

In the preface of "The House-Sparrow" Mr. Tegetmeier writes: "It is a remarkable fact that there is not one eminent, practical ornithologist of the present day in England or elsewhere who advocates the protection of the sparrow." The late Lord Lilford, *facile princeps* in ornithology, who at one time took a lenient view of the sparrow's delinquencies, in later years entirely changed his opinion and wrote: "I consider that every bird-catcher who confines his operations strictly to the taking of sparrows is a benefactor, and should be subsidised by the parish authorities." The book to which I have drawn attention can scarcely fail to carry conviction to any reader's mind, and to render him an advocate of a determined and sustained attempt to abate the sparrow plague.

S. W. FITZHERBERT.

THE FRUIT GARDEN.

NEW STRAWBERRIES.

AT the last meeting of the Royal Horticultural Society the fruit committee gave awards of merit to two new Strawberries—Laxton's Reward and The Alake, shown by Messrs. Laxton Brothers, Bedford, and James Veitch and Sons, Limited, Chelsea. Both are large, handsome varieties, and are evidently of

good flavour also, otherwise it is safe to assume they would not have been recognised by the committee. Laxton's Reward could hardly have a better parentage—Royal Sovereign and British Queen, the former, perhaps, the best all round Strawberry we have, and the latter generally recognised as the best flavoured. The new fruit is cock's comb shape and crimson-scarlet in colour. The flavour reminds one a good deal of that of Royal Sovereign, but it is modified and improved in this respect by British Queen. If Laxton's Reward proves as vigorous and free bearing a Strawberry as Royal Sovereign it ought, with its superior flavour, even to supplant the latter, which is, without doubt, grown more than any other variety, both in private and market gardens. Messrs. Veitch's new Strawberry, with its up-to-date name The Alake, is the result of a cross between two varieties of excellent flavour, Frogmore Late Pine and Veitch's Perfection, one of the parents of the latter being, if I remember rightly, Waterloo.

The fruits are deeply ribbed, and some are very large; the colour is dark scarlet. I have not tasted it, but with two varieties of such



NEW STRAWBERRY LAXTON'S REWARD. (Natural size.)

(Shown by Messrs. Laxton Brothers, Bedford, before the Royal Horticultural Society on June 28, and given an award of merit.)

delicious flavour for its parents, this new comer can hardly fail to be rich and sweet. Messrs. Veitch showed a number of fruiting sprays, which would seem to indicate that fruits are produced very freely.

There have not been many new Strawberries shown before the Royal Horticultural Society during the last three or four years that have either received first-class certificates or awards of merit. Perhaps it is that many of the old sorts are so good and gardeners find them so satisfactory that they disregard new introductions, and thus the latter fail to find a market, and few raisers take much trouble in the matter. As a matter of fact practically all the new Strawberries recognised by the fruit committee of the Royal Horticultural Society during the last few years have been shown by Messrs. James Veitch and Laxton Brothers. It may be of interest briefly to mention those new Strawberries which have thus been honoured since 1903.

The first on the list is Trafalgar (Laxton), the result of a cross between Latest of All and Frogmore Late Pine. It is of very good flavour and free growth. At the time (June,

1900) of its first public appearance it was thus reported upon: "Will become a standard variety on account of its free growth and splendid flavour." Next is The Laxton (Laxton), which received a first-class certificate in June, 1901. Its parents were Royal Sovereign and Sir Joseph Paxton. Everyone still speaks highly of this Strawberry, both for its heavy cropping and its good flavour. It is also recommended as good for forcing. One grower wrote of it: "I have never seen a heavier cropper, and it will certainly become a great market variety." Givon's Late Prolific (raised and exhibited by Mr. William Peters, gardener to Mr. H. P. Sturgis, Givon's Gardens, Leatherhead), was given an award of merit in July, 1902. This is a large, handsome late fruit, almost oblong in shape, of deep scarlet colour, the result of a cross between Waterloo and Latest of All. The Khedive (Veitch) received an award of merit in July, 1902. Two varieties of proved excellence were its parents—British Queen and Lord Suffield. It is under medium size, long, deep red, and of first-class flavour. It was recommended as very good for preserving. Last on the list is The Roydon, a variety that received an award of merit on September 29, 1903, a very late date for a Strawberry to be at its best. The parentage was not stated. The fruit is large and of deep crimson colouring, with probably Waterloo as one of its parents.

It would be very interesting to hear from those who have tried all these new varieties, and to know if they have come up to the expectations formed of them. Sometimes a new fruit proves of no value, and in that case it often falls out of cultivation, but it also happens that a good new fruit does not become widely known; there are many gardeners who never hear of it. That may be the case with some of the Strawberries I have mentioned, so that if correspondents having tried them would send their experience it could hardly fail to be of interest.

I have often wondered why such an excellent Strawberry as Countess has not played a greater part in the production of new varieties. It is of delicious flavour, attractive appearance both in colour and form, and I have always found it to grow well. Dr. Hogg is another splendid sort that has not been largely

used by the hybridist, although I notice that in some of Messrs. Laxton's new varieties this is one of the parents. H. P. A.

ORCHIDS.

CATTLEYA MENDELII PINK PEARL.

CATTLEYA MENDELII is one of the most beautiful summer flowering species, but owing to the comparative scarcity in its native home new and distinct varieties have been by no means common during the last few years. Under the above name, however, Mr. Bradshaw, of The Grange, Southgate, has a form which is certainly worthy of a premier position, by reason both of its beauty and unusual colouring. The plant has flowered this season for the first time, and not being very strong the flowers, though ideal in contour, can hardly have reached their maximum size. The sepals and petals are well proportioned, firm in substance, and pitched well forward; soft, glistening white, overlaid with the merest tinge of rose, excepting on the midribs of the petals, which toward the bases are quite white. The lip has, for a Cattleya, a most extraordinary colour, the whole of the front lobe, including the heavily frilled border, being a rich crushed strawberry tint. On either side at the entrance to the throat are two bright, ochre yellow suffused areas, passing into pure white as they meet the frilled border, while extending from beneath the column, and merging into the coloured portion of the lip, are radiating, interrupted lines of a reddish hue. On the external surface the tube is quite white, save where the yellow areas show through. With the above Cattleya was a splendid form of *Lælio-Cattleya* C. G. Röebing, the hybrid derived from *Lælia purpurata alba* and *Cattleya gaskelliana* var. The plant in The Grange collection is part of the original which flowered first with Messrs. Sander and Sons, of St. Albans. Although several plants have since flowered, the first is supposed to be the finest variety, and certainly, judging by the flowers under description, it would indeed be difficult to surpass. In general shape the flowers are not unlike those of a fine *Cattleya gaskelliana*, but much larger, the lip more elongated; and the *Lælia* parent is evident in the "set" of the sepals and petals, which appear white at a distance, but in reality are of a light blush lilac shade, the petals beautifully waved and undulated on their edges. The broad, expanded lip is not only remarkable for its size, but is most conspicuous from the extreme brilliancy of colouring. The front lobe is of a vivid crimson-purple, heightened by magenta, the colour terminating in an irregular line at the entrance to the throat, where it is met by clear golden yellow, which occupies the greater part of the surface, but passes into white on the upper edges of the tube. Beneath the column a number of branching hair-like lines radiate towards the front lobe.

The whole of the lip is bordered by a beautiful purple tinged, convolute white frill nearly a quarter of an inch wide, adding a charming finish

to the flower, which further has the delicate scent characteristic of *Cattleya gaskelliana*.

ARATUS.

WORK FOR THE WEEK.

ODONTOGLOSSUM ROSSI MAJUS.

THESE have now passed through their season of rest and new growth is starting, offering the most favourable time to renovate and give fresh material to any that need it. A good compost consists of two parts fibrous peat, two parts sphagnum, and one part leaf-soil, mixed together with some coarse sand and small crocks. Pans are generally used, but there is not sufficient depth for the roots, which are many and large considering the smallness of the plant, so that ordinary pots that have holes for suspending are the best receptacles. They should be half filled with chopped rhizomes. Pot moderately firm, and surface with sphagnum. The roof of the cool Orchid house provides suitable quarters. They will not require much water for some time—just enough to maintain the compost moist. When the growths have made progress and the new roots have entered the fresh material copious supplies will be beneficial. Spray the plants well from now until the autumn unless the days are wet and cold, and when the flowering season again comes round the effect of good culture will be apparent. *O. aspersum* and *O. Cervantesii* are two beautiful small Orchids that may now be seen to as regards potting, &c., and generally treated in the same way as the foregoing.

ODONTOGLOSSUM GRANDE, O. INSLEAYI, AND O. SCHLIEPERIANUM.

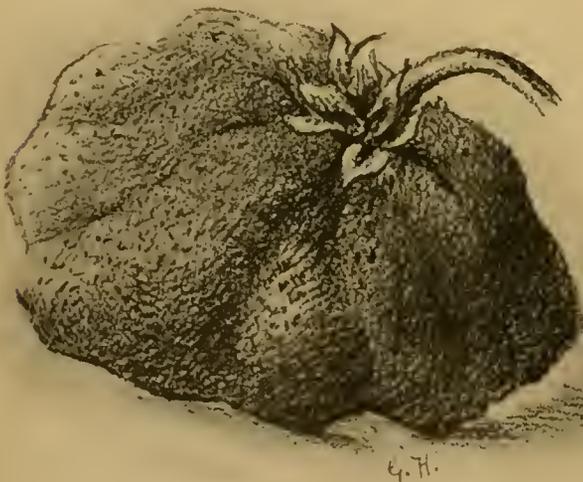
The new growth is now sufficiently forward to enable the necessary potting or resurfacing being carried out, using the same compost as for the above, and again using ordinary pots with a rhizome drainage. In repotting cut away old back bulbs, not retaining more than two behind each leading one. This is most important to their well-being; if many poor bulbs are retained rapid deterioration will soon be in evidence. If the above treatment is carried out the plants will often show signs of marked progress. I prefer a slightly warmer house than the ordinary cool house in which to cultivate them; a very suitable one is the cool intermediate, choosing the coolest part of that. Water should be carefully applied till the growths show signs of swelling at the base. From that period till full development well-rooted plants will take liberal supplies. W. P. BOUND.

Gatton Park Gardens, Reigate.

BOOKS.

La Mosaiculture Pratique.*—Whatever may be the various opinions of our readers on the subject of carpet bedding, it is a matter beyond all question that our friend M. Albert Maumené is eminently qualified to discourse upon such a subject. M. Maumené as a horticulturist, as a journalist, and as an author has a very wide experience, and the fifth edition of his book now under notice is ample proof of the high esteem in which his writings are held on the other side of the Channel. Several of his books on floriculture have been awarded high distinctions in France, *L'Art Floral à Travers les Siècles* and *L'Art du Fleuriste* being not the least important of them. In "*La Mosaiculture Pratique*" we have a bulky little manual of over 400 pages, that tells the reader almost everything he is likely to want to know concerning carpet bedding and kindred subjects. Two coloured plates and 216 figures in black and white, most of them designs and plans for every season of the year, embellish the work with a profusion not often to be found in a French gardening treatise. Many of these are accompanied by appropriate lists of plants to be used in these floral compositions. A brief survey of M. Maumené's work is all we can give in the space at our command. In all there are sixteen chapters, the principal ones

* "*La Mosaiculture Pratique*." By Albert Maumené. Librairie et Imprimerie Horticoles, 84, bis rue de Grenelle, Paris.



NEW STRAWBERRY THE ALAKE. (Natural size)

(Shown by Messrs. James Veitch and Son, Limited, on June 28, and given an award of merit by the Royal Horticultural Society.)

being on the history of carpet bedding, æsthetic considerations, application of carpet bedding for winter, spring, summer, and autumn, various kinds of mosaiculture, colours, designs, propagation, carpet bedding abroad, &c. The ground over which the author travels is considerable, and he apparently leaves but little further to say on the subject. Although tastes differ in this phase of gardening more perhaps than in any other, yet when we remember that the author is a Frenchman we are not surprised to find many of the designs much more attractive than some of those employed by American gardeners in the parks and public gardens in the States. Anyone, knowing French or not, who has to execute work of this description might easily find in M. Maumené's treatise something in the way of a hint, to be acted upon either in its entirety or subject to slight modification, according to the exigencies of the case or individual taste. The book is neatly printed in clear type, is stitched in parchment paper wrappers, and generally got up in good style. The price at which it is published, viz., 3 francs, will inevitably ensure it a large sale.

Manuel du Champignoniste, professionnel et amateur.*—We wonder sometimes what the French cuisine would be like if there were no Mushrooms. Both here and in France books on this tasty esculent are numerous, but the one recently published by M. Cauchois claims to be somewhat more comprehensive in its scope than any of its predecessors. In style and get up generally the book is uniform, with most of the recent gardening works published by the Librairie Horticole. It contains about 200 pages, and has thirty-two illustrations in black and white explanatory of the text. The author qualified, both from practical and theoretical points of view, as an eminent Mushroom cultivator, gives his readers very ample instructions in the art of producing Mushrooms in a variety of ways. In the course of twenty-four chapters everything connected with the subject seems to be dealt with, botanical, historical, and cultural; diseases, animal and insect pests, remedies, underground culture, a lengthy chapter on the manures to be used, the making of the beds, &c., are points that are all dealt with *in extenso*. Gathering the crop and placing the same on the market for sale follow in proper sequence, and then recipes for the preserving of Mushrooms are among many other items of information supplied. An excellent index is supplied, and the book will no doubt be useful to those of our Continental friends and colleagues who are interested in the art of raising edible fungi of the Mushroom family.

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.

AN INTERESTING COLLECTION OF FLOWERS.

From Graywood Hill, Haslemere, Mr. B. E. C. Chambers writes: "I am sending you per this post a miscellaneous collection of flowers now in bloom here in the open for your table, viz.: *Cornus brachypoda*, tree 20 feet high; *Athrotaxis doniana* (fruit); *Buddleia Colvillei*, shrub 12 feet high; *Spiraea bracteata*; *Cornus Kousa*, shrub well covered with its white bracts—a better deer than *Cornus*

florida, which has produced very few bracts this year; *Viburnum tomentosum* var. *plicatum*; *Coriaria japonica* (berries); *Magnolia Watsoni*, planted in 1894, and which has flowered every year since 1896, *not* against a wall; *Azalea indica* variety, from Yokohama, a most profuse bloomer, and quite dwarf; *Kalmia angustifolia* var. *rubra*; *Chionanthus retusus*, the Chinese Fringe Tree; *Iris Douglasii*, likes sun; *Phlomis fruticosa*, makes a large bush; *Zygadenus muscatolicum*, said to poison flies, and wish it would do so. I hope the specimens will reach you in good condition, though some of the flowers have been cut some days."

[A most interesting collection of flowers, comprising several that are but little grown. The *Viburnum* was very fine.—Ed.]

NEW PINKS FROM MESSRS. B. LADHAMS.

Messrs. B. Ladhams send from their nurseries, Shirley, Southampton, a boxful of their beautiful perpetual flowering Pinks, all of which are of their new race. The great feature of these novelties is that they flower more or less continuously, blooming even into October, and the plants are for the most part sturdier than the older Pinks. The range of colouring is more extended, and the fragrance stronger. There are self, rose-pink, white with purple lacing, fringed and otherwise, pure whites, rose, and many other shades; a very charming set, and we hope Messrs. Ladhams will continue their interesting work of extending the season of one of the most welcome of summer flowers.

THE LAXTON STRAWBERRY.

Messrs. Laxton Brothers, Bedford, send fruits of The Laxton Strawberry, the first fruits of which were gathered outdoors on the 14th ult. The fruits are of delicious quality, a fresh piquant flavour suggestive of British Queen, rich in colour, and very firm. The fruits sent to us were gathered from plants put in during November. We have nothing but praise for so fine a fruit in appearance and in flavour.

THREE GOOD HONEYSUCKLES.

Mr. T. Smith sends from Newry "three good North American Honeysuckles." They are *L. pubescens* (*hirsuta*), with rosy purple buds and light yellow flowers, *L. Sullivanti* with pale yellow flowers, and *L. glauca*, orange-brown.

SOME OLD-FASHIONED FLOWERS.

Miss Hopkins, Mere, Knutsford, Cheshire, writes: "I send you a few old-fashioned flowers for your table. I think the double white Rocket and the *Lychnis viscaria splendens* fl.-pl. very useful to grow, and especially for cut flowers. We are almost dried up here, being on a light sandy soil." Miss Hopkins also sent flowers of *Lilium monadelphum szovitzianum* and an old unnamed Irish Rose.

ROSE COMTE BOBRINSKY.

Mr. Field, Ashwellthorpe Gardens, near Norwich, sends flowers of this old-fashioned but beautiful Rose with the following note: "One but seldom meets with it now in gardens, and nurserymen do not catalogue it. I find it mentioned but once in 'Rivers's Rose Amateurs' Guide,' published in 1866, and there it is classed among the decorative climbing Roses. In shape the flower is not quite equal to some of our best Roses, but the colour is exquisite. With me it does best on its own roots, is perfectly hardy, and blooms from June until the end of August. All who love Roses should have at least one plant of the fine old garden variety Comte Bobrinsky."

[A dark crimson fragrant Rose. Not a sort to lose sight of.—Ed.]

AZALEA OCCIDENTALIS.

This beautiful Californian Azalea seems to be still so little known that I send a few flowers in order to remind readers of THE GARDEN of its

existence. Every garden that has a light or peaty soil grows the hardy Ghent Azaleas, but the beautiful occidentalis seems always to be forgotten. It flowers three weeks later than the others, and is accompanied by its fresh green polished leaves. The white flowers, often handsomely blotched with pale yellow, vary a good deal in size, as you will see by the blooms enclosed. The scent is even sweeter and more powerful than that of the earlier Azaleas.—G. J.

HOSE-IN-HOSE MIMULUS LUTEUS.

Mr. R. Dean of Hounslow sends flowers of his brightly coloured Hose-in-hose form of *Mimulus luteus* Golden Queen. Such a *Mimulus* as this is worth planting in cool not over-dry spots in the garden for the sake of brightness and freedom. Mr. Dean sends the following note: "I am sending you a few flowers of my *Mimulus luteus* Hose-in-hose Golden Queen. It is quite hardy, wonderfully floriferous, the plants being of vigorous growth, and as it does not produce seeds it flowers until quite late in the year. I have a large bed of it in my Primrose nursery at Hounslow, which is a mass of brilliant yellow. Hose-in-hose forms sometimes appear among our ordinary strains of *Mimulus*, but they are not quite infertile, though they produce very few seed grains. All my efforts to induce Golden Queen to produce seeds have failed."

FLOWERS FROM WINCHMORE HILL.

Mr. Amos Perry writes: "I have much pleasure in sending you a few flowers of my new *Phlox canadensis*, Perry's variety. I consider it one of the greatest acquisitions we have had in hardy plants for many years. It has been in full flower in the open since May 14, and will be in flower for at least another month. It has a far more vigorous constitution and the flower is a better colour than the old variety. It grows fully 18 inches high, and the flowers are on stiff wiry stems. Some of the heads have been 8 inches and 10 inches through. *Gypsophila repens monstrosa* is another fine hardy plant, and when better known will be grown by everyone. It has been in flower now fully three weeks. It makes a pretty dense bush, literally covered with flowers, and for table decoration is invaluable. *Heuchera rosea*, I contend, is one of the finest of the whole of the *Heucheras*. It is remarkably free flowering, and flowers at least six weeks longer than any other variety I know. It is one of my seedlings raised here about six years ago, and every year it is one of the features of my nursery."

[Three very beautiful garden flowers.—Ed.]

NURSERY GARDENS.

STRAWBERRIES AT BEDFORD.

MESSRS. LAXTON BROTHERS, The Nurseries, Bedford, have now a reputation second to none other as raisers of Strawberries. Probably no variety put into commerce since Sir Joseph Paxton was sent out has helped to that reputation so greatly as Royal Sovereign, practically the Strawberry of the day. But there are many others of the firm's raising that are widely grown, such as Fillbasket, Latest of All, Monarch, Leader, Trafalgar, Climax, and, not least, the recently introduced The Laxton, a variety of exceptionally high quality, and this list might be largely added to. The members of the firm in devoting themselves to the Strawberry in this way have great faith in the possibilities of this fruit, and think that there is still great room for improvement, as also for its production over a much longer season. That progress is slow is certain, but such slowness may be regarded as indicative of permanent improvement. During the twelve years Messrs. Laxton have been established at Bedford they have made no less than 900 separate Strawberry crosses. Naturally to test all these some three or four years, to make from them

* "Manuel du Champignoniste, Professionnel et Amateur." By A. Cauchois. Paris: Librairie Horticole, 84, bis rue de Grenelle.

their focal selections and to put those selections into commerce, has been a great undertaking. But while the favoured selections have been very few—hardly one per thousand—the rejections have been many. Hence it is evident that the raising of new varieties of Strawberries opens up no very promising field of enterprise in a pecuniary sense.

There were many acres of Strawberries fruiting when a party of critics was invited to inspect them on the 1st inst. They found the Bedford soil stiff and dry, yet the plants were carrying grand crops of superb fruit. Naturally attention was chiefly devoted to seedlings, of which there were several hundreds on trial, and so good were all that the work of selecting the best was most difficult. Those most in favour were Bedford Champion, a huge cropper, fruits fine, round, perfectly coloured, deep scarlet, flesh firm, succulent, and pleasantly flavoured; should make a popular market variety. This variety has for its grandparents Noble, Sir Joseph Paxton, Scarlet Queeo, and John Ruskin, a couple of selected seedlings being the immediate parents. A variety of great excellence which received an award of merit unanimously at the Drill Hall on the 28th ult. is the product of crossing Royal Sovereign and British Queen. The fruits are richly flavoured, somewhat pointed in form, of a deep red colour, and abundantly produced in midseason. The Bedford is another named seedling soon to be sent out. It has robust protective leafage, as, indeed, have all the selected varieties, is a great cropper, and has firm, handsome, conical fruits of high quality. The parents were Sir Charles Napier and Latest of All. Another most interesting variety is named Laxton's Latest. This seems to be without exception the latest ripening of all summer Strawberries; it should be of great value on retentive soils in helping to prolong the fruiting season. The parents were Latest of All and a late seedling. Not a fruit was ripe when then seen, but it is evidently a great cropper and very robust. Climax, from Waterloo and Latest of All, has just been put into commerce, and is a fine flavoured and delicious variety. The Laxton had done well, but was nearly over.

Messrs. Laxton by no means limit themselves to varieties of their own raising; they use every known good one as parents, and have even utilised alpine, Hautbois, perpetuals, and even the original Chilian and other species. But they hold that this starting afresh from original forms is but travelling over long-trodden ground, and that it is best to keep on working with the best forms of to-day. So irrepressible is the hybridising faith that crosses have been effected with marked success between Raspberries and the Loganberry, among Gooseberries, Currants, &c., and even the Plum and Apricot have been crossed, as products showed. After seeing the Strawberries the party were driven to Old Warden Park, Biggleswade, the singularly beautiful residence of Colonel Shuttleworth. Mr. Modrae, the gardener, acted the host for his employer with the utmost liberality.

MISCELLANEOUS.

ROUND THE BROOME GARDEN.

BATH has had a lovely spring, and gardens are earlier than their wont. In the Botanical Garden there are some good new things, and the work of extending the rockwork always goes steadily on; but there seem small traces of deterioration here and there, due, no doubt, to the incessant rain of last season, which must have impoverished the soil on all raised beds or banks. A little planting of *Erinus alpinus*, both in the purple and white forms, for example, is neither so good in growth nor blossom as it might be, and other of the small alpine, as *Geranium argenteum*, look a trifle starved. The *Ramondia pyrenaica* is flowering poorly, and so is the lovely *Cistus florentinus*, while the glorious bush of *Choisya ternata*, that was quite a feature on one bank, seems to have been cut down to half size.

To make up for these criticisms unstinted praise must be given to the Japanese Maples, which personal experience leads me to say are not easy to grow on Bath soil; but here they are magnificent, especially the bright red ones. So are the various *Viburnums*, all thrifty bushes of ample yet handy size, absolutely massed with blossom, whether grown on the border banks or on the turf. *Viburnum tomentosum*, with its thickly grouped flowers, like small white rounded *Hydrangea* heads, and *V. rugosum*, are two that no one seeing them here could fail to admire. *Raphiolepis japonica*, a smallish, neat, rounded shrub, with flowers resembling *Choisya ternata* and leaves red tinted on the reverse, is particularly good; and so is *Fraxinus Mariesii*, a light growing treelet about 6 feet high, with large feathery white flower panicles.

The double white Lilac *Mme. Lemoine* is in grand flower, almost hiding its leaves. This is a lovely thing for a grassy bank, or the lawn, with its sweet, long trusses. *Deutzia parviflora*, nearly over, is pretty, but not so good as the commoner *D. gracilis*. I did not see any of the newer *Deutzias*, as *D. carminea*, which is really a very beautiful shrub, and as I lately saw it was a perfect bouquet of large double flowers, thick along its slender twigs, and deliciously rosy flushed. It is one of those things which is usually very disappointing for the first year or two after planting, and then bursts upon one, in good bloom, as truly exquisite. *Cytisus scoparius variegatus* is flowering splendidly and is a fine bush, but to some tastes it appears like *C. scoparius* with a leaf disease, and is therefore unattractive, like some other choice variegated plants.

Ceanothus veitchianus, trained to the iron railings of the garden, which run along the turf, looked exceedingly well, and gives an object-lesson in a very good way to make ugly things pretty. The *Ceanothus* is well suited, to judge by its vigour and the freedom of its flowering, and the railing loses all its ungainliness by being the right thing for its purpose. Clematis takes up the tale, and also looks and does thoroughly well on the railing, which is about 4 feet high. *Cytisus purpureus* is in good bloom, but I have seen a better form, with larger flowers of clearer colour. *Mainthemum Convallaria* is flourishing exceedingly, and looks very pretty on the shady side; so does a showy, lanceolate-leaved, free-growing plant with abundant white flowers labelled—as a little distance, it is true, and whether or not the label is its actual property seems uncertain—*Epiobium mexicanum*.

Polygonum capitatum, with red and green tomentose leaves, low growing, and covered with small, waxy pink balls of flower, is decidedly pretty in colouring. One *Meconopsis Wallichii* suggests that someone might give the garden a packet of the seed, obtainable for 1s., from which this lovely plant is easily raised. *Meconopsis nepalensis*, also a singlet, is barking a *Ramondia*, upon which it encroaches. *Senecio alpinus*, a small, lilac *Erigeron*-like flower, is rather pretty, and so is *Primula ciliata* and *coccinea*, with flowers built like *Dodecatheons*, of a dull pink, and smooth leaves. *Caltha biflora*, so beautifully planted in a tiny mud-pond in the deep hollow of a flat stone, looks well and healthy, and twice as big as last year. The red *Sempervivum triste* on the sunny Saxifrage rockery is now a good large patch, and strikes an uncommon note, enhanced by the sharp white of *Achillea umbellata* close by. *Limnanthes Douglasi*, used as a ground plant under a round-headed *Prunus spinosa*; the low-toned leaves and flat, five-petalled, faded, scarlet flowers of *Papaver pilosum*; and some *Mimulus cardinalis* at the foot of a big grey rock, fronted by *Erica herbaea* out of flower, were all good bits of colour effect. *Ranunculus aconitifolius*, which is weedy and over-stalked ordinarily, was well banked up on a rockery with *Iberis* in flower, and looked pretty thus. By the bog garden one good *Eremurus* spike tells well, making one wish it twenty, and the uncommon *Erodium absinthoides* is interesting. It has greyish green Ferny foliage, grows closely, about 3 inches to 4 inches high, and is sparsely covered with small, pinkish flowers, not at all showy, but neat and pretty.

M. L. W.

EEL WORMS.

COMPLAINTS occasionally reach me as to the destructive character of this pest in gardens, and especially in the cases of Cucumbers, Tomatoes, and Carnations; other plants are also subject to their attacks. "Eel worms belong to a group of nematoid worms (*Tylenchus*), which infest the roots and other parts of various plants, but their life histories are but imperfectly known. They are colourless, microscopically small creatures, like eels in miniature, and often do an incredible amount of harm on account of their numbers. Cucumbers, Tomatoes, and other plants are often destroyed by these worms, which penetrate their roots from the soil, causing them to develop swellings, in the cavities of which the pest lives and deposits its eggs, increasing at an alarming rate" (*Gardeners' Assistant*). They do much injury to Carnations, causing the appearance of what is known as "gout," the symptoms of which are manifested by large whitish or livid patches on the leaves chiefly at or near the collar of the plant. It is generally held that the worms are derived from the soil, they force an entrance to the stems of the plants, lay their eggs, which, when hatched, produce worms which eat their way upwards, and in the case of the Carnation produce the livid patches referred to.

The difficulty lies in finding a remedy. It is said that the worms in the soil can be readily destroyed by the application of some caustic material, but nothing, it is feared, can be applied to the affected parts of the plants without killing them outright. Burning the plants is generally recommended as the only means for the extirpation of the nematoids and the removal of the soil in which the plants are growing. As soon as there are evidences of the presence of the worms in the plants burning should be at once resorted to.

R. D.

ONOSMA TAURICUM.

THIS is an effective rock plant when in good health and flowering freely, but often proves difficult to grow satisfactorily. Still, at times it may be seen in the best of health under conditions that would appear to be unfavourable to its well-being. A few years ago I saw a number of plants growing in a perfectly flat bed in heavy loam inclining to clay in a Devon nursery. These plants were flowering profusely and were the picture of health, but one would never think of treating the *Onosmas* in this way in one's own garden. A plant that I have is growing in road-grit in an elevated position overhanging a rock, but last year did not produce a single flower-spike, and I feared that it would not outlive the winter. This year, however, it has taken a new lease of life and is throwing up over sixty flowering growths, the earliest of which have already expanded some of their blossoms.

S. W. F.

OBITUARY.

MR. ALEXANDER SCLATER.

MR. ALEXANDER SCLATER, who died on the 23rd ult. at the comparatively early age of forty-eight, was a well-known man in Edinburgh horticultural circles. Serving his apprenticeship with Messrs. Thomas Methven and Sons of Edinburgh, Mr. Sclater afterwards was for some time with the firm of Messrs. R. B. Laird and Sons, but re-entered the employment of Messrs. Methven to occupy the position of principal shopman in their Princes Street establishment. He managed their seed department for twenty-eight years, and his services were held in the highest estimation by his employers and their many customers of all classes. As a member of the council and as a vice-president of the Scottish Horticultural Association he did good service to gardening, and in all the spheres he took an interest in he was a general favourite. Mr. Sclater had been suffering from illness for some time, but it was only within the last three months or so that it became acute. His funeral, which was largely attended, took place at the Grange Cemetery, Edinburgh, on the 25th ult.

THE TEMPLE ROSE SHOW.

THE ANNUAL EXHIBITION OF THE NATIONAL ROSE SOCIETY.

THE twenty-eighth annual exhibition of the National Rose Society was an unqualified success. At the moment of going to press we are unable to say whether the society gains in wealth—we hope so; but at least it has shown that when summer behaves itself, and the year is a Rose year, there is nothing pleasanter in July than a morning ramble through the big tents in the Temple Gardens when the National Rose Society is holding high festival. A pathetic interest attaches to the show this year—the President, the very Rev. the Dean of Rochester, full of years and honour in the world of flowers, lies on a bed of sickness. Many expressions of sympathy with the aged pioneer of this society were heard in the crowded tents, and, of course, we hope that once again this keenest of rosarians and most enlightened of men may see the brilliant display of flowers in the leafy and historic Temple Gardens.

The show of 1904 will be remembered as one of the finest on record. It was refreshing after the miserable display of last year, for which the season was responsible, but even in this year of grace the southern growers complained sadly that the sunshine of June had forced their Roses along with a pace so rapid that there was no holding in before July 6, and the northern growers scored. Messrs. Harkness won the champion trophy and the great contest for first place in the class for seventy-two distinct varieties, with Messrs. B. R. Cant, the Old Rose Nurseries, Colchester, second. These classes are on conventional lines. They are reminiscent of Rose shows many years ago, but, fortunately, the National Society's devotion to the queen of flowers is not conservative. It has proper reverence for the show bloom as such, but wisely recognises that those who delight in gardens of Roses want something beyond this—Roses to garland pillars and pergolas, and that will bring colour and fragrance wherever they are placed. It is pleasant to chronicle a class for arches of Roses to show the beauty of the more modern varieties for this purpose, and the bunches of old-time Roses, the flowers for which our forbears were grateful, recall the great advance that has taken place in recent years in raising Roses that bring a fresh joy to the English border and woodland. We were pleased to see the Moss Rose well shown, and that throughout the exhibition there was a desire to preserve these favourites of the past by encouraging their presence in the

present exhibition. Rose macrantha was everywhere, a pure delight in soft rose and white, and the Sweet Briars, the Penzance and others brought to mind the great work that has been accomplished by those who do not call themselves professionals. A few blacking bottles reminded one of the shows fifteen years ago, when these were the popular receptacles for Daffodils and other spring flowers. We hope the secretary will prevent a Rose being exhibited except in a decent bowl or vase.

The dinner-table decorations were charming, and the awards justly given. The first prize was won by Mrs. J. B. Langton of Hendon, with a very simple arrangement of soft pink flowers, and Miss O. G. Orpen second, with white and rose colours. Beautiful flowers of the Killarney Rose were staged by Mrs. H. E. Molyneux in the vase class, and gained first award, the competitors numbering thirteen.

The gold medal Rose of the year was the beautiful Hybrid Tea Dean Hole from Messrs. Alexander Dickson of Newtownards. We wish the president, after whom it is named, could have seen a Rose so tender in colour and noble in form; it was a happy thought to name a Rose in honour of one to whom the society owes so much. The other gold medal was given to Mr. Orpen, one of the most enthusiastic of amateur rosarians, and the variety was named Mrs. O. G. Orpen, a single flower of delicate colouring, a variety we think will be welcomed in English gardens.

The garden Roses from Mr. Alfred Tate, Downside, Leatherhead, for arrangement and individual beauty were worthy of more than passing notice.

The honorary secretary, Mr. E. Mawley, will look back upon the Rose show of 1904 as one of the brightest and greatest in the history of the society. And how much of the result is due to him only those know who are acquainted with his quiet and persistent work. A secretaryship, even if it is distinguished by the prefix honorary, is no sinecure. There must be a personal influence behind, and all we hope is that the society is enriched by the crowds that seemed to fill the tents throughout the day.

The heat was overpowering, but the tents were well ventilated, and although we have yet to discover the secret of instilling life into flowers for more than a few hours when the sun is in summer mood, we dread to think of the consequences of a two-day show, unless on the second day the flowers are renewed.

It is worthy of record that Mr. Mawley was assisted by the officials of the Royal Horticultural Society. It is pleasant to know that a strong bond of friendship exists between the R.H.S. and N.R.S., a friendly meeting together once a year in the Temple Gardens, and in the autumn in the new hall in Vincent Square. We look forward to the autumn show with keen interest. It will be a display of colour. Flowers paling under the hot suns of July will then show their freshest and truest beauty, and we speak especially of the Teas and Hybrid Teas.

The National Rose Society does something more than merely hold a show once a year. Its publications are invaluable, and the newest work will be, perhaps, the most appreciated—a work on pruning Roses for exhibition, garden decoration, pillars and pergolas. It will be issued in November next free to members. The National Rose Society imposes no financial burdens on its members. Membership brings full value for the money, and as we know the honorary secretary is desirous of still further increasing the list of subscribers, we may mention that his address is Rosebank, Great Berkhamstead.

Attached to the schedule for the show are many interesting particulars about the history of the society from the Rev. H. D'Ombrain, V.M.H., who founded the society in 1876, and was for twenty-five years an honorary secretary. In it occur the following words:

"It was on a murky December day in 1876 that the most representative gathering of rosarians ever held in this country met together in the rooms of the Horticultural Club on the Adelphi Terrace to consider what could be done to advance the interests of the Rose, for in truth the queen of flowers had fallen on evil days. Two days' shows were the rule rather than the exception; there was no real classifications of exhibitors, or, indeed, of exhibits. The French plan seemed to have come into vogue, namely, that of classes for a large number of flowers without much reference to their character. Summer Roses were largely in evidence in exhibition stands, and quantity, not quality, appeared to be the object aimed at by societies. It was a bold and daring step then that I took in venturing to invite all lovers of the Rose to meet together to consider the situation. I was not a Rose exhibitor myself, and could not therefore speak from my own experience, but I had always liked during my life being an organiser. I had founded the Dublin Natural History Society, one of whose prominent members was the late Archbishop Whateley, and I was one of the originators of the Horticultural Improvement Society of Ireland; but I knew that if the

plan that I had now in hand succeeded it would involve a greater expenditure of labour than anything that I had previously attempted, and now that I had no longer a populous town parish in which to carry on my ministerial work, but a quiet, retired, rural one in a beautiful part of Kent, I felt I might devote some of my spare time to the society I contemplated founding. But it was with no little anxiety that I watched the door of the place of meeting to see who might come in. As one after another of our most representative Rose growers of that day, both professional and amateur, entered the room things looked brighter, and when Canon Hole came in most of those present felt the day was won. It was truly a representative gathering. Amongst those present on that occasion were Canon Hole (now Dean of Rochester), Rev. C. H. Bulmer, W. Cutbush, John Cranston, W. Robinson, G. Paul, Captain Christy, Herbert J. Adams, Horace K. Mayor, R. N. G. Baker, Rev. J. B. M. Camm, Dr. Robert Hogg, H. K. May, W. E. Ball, James McIntosh, T. Francis Rivers, Charles Noble, R. W. Tootell, Lewis A. Killick, T. J. Mann, John Mayo, B. R. Cant, Edward Mawley, George P. Hawtreay, John Laing, Charles Turner, Hubert Bensted, William Paul, J. L. Curtis, A. W. Paul, the Hon. and Rev. J. T. Boscawen, R. B. Cater, W. Scott, Maurice Young, J. W. Parker, George Prince, and Francis Bell.

"As showing the extent of the society's exhibitions, it may be mentioned that the average number of Rose blooms shown at the last twelve metropolitan exhibitions (exclusive of "garden" Roses) has been 6,000, the highest number being 7,400 in 1897. At the northern exhibition the average number shown has been 3,350, the highest number being 4,300 at Birmingham in 1890; while at the southern shows the average, exclusive of 'garden' Roses, has been 2,400 blooms, and the greatest number 4,000 in 1896 at Reading.

"The number of members at the present time is about 1,100, and the number of affiliated societies 36. People may like to know that the only exhibitors who showed at the exhibition at St. James's Hall in 1877, and who still continue to exhibit, are A. Evans, Marston, near Oxford; Edward Mawley, Berkhamsted; Rev. J. H. Pemberton, Havering; J. T. Strange, Aldermaston; and M. Whittle of Leicester."

NURSERYMEN.

GENERAL SECTION.

Seventy-two blooms, distinct varieties (nurserymen's champion class): First, Messrs. R. Harkness and Co., Hitchin, with an exhibit that, it may be safely said, has rarely, if ever, been surpassed at the National show. All the blooms were magnificent in form and colour, and the varieties shown were seen at their best. Some of the finest were Maman Cochet, Marchioness of Londonderry, Mrs. Edward Mawley, Rev. Alan Cheales, Maréchal Niel, Comtesse de Nadaillac, Gustave Piganeau, Earl of Dufferin, Her Majesty, Mrs. John Laing, Horace Vernet, and Sir Rowland Hill. Messrs. B. Cant and Sons, Old Rose Gardens, Colchester, were second with, on the whole, smaller blooms, though colour and form were splendid. Conspicuously good were Mrs. W. J. Grant, Mrs. John Laing, Maurice Bernardin, Medea, Mrs. Edward Mawley, Marie Baumann, Dupuy Jamain, and Frau Karl Druschki. Messrs. Frank Cant and Co., Colchester, were third. In their exhibit Mrs. John Laing, Bessie Brown, Captain Hayward, Duke of Edinburgh, and Fisher Holmes were the best blooms. There was one more exhibit in this class.

Forty distinct varieties, three blooms of each: First, Messrs. A. Dickson and Sons, Newtownards, with some beautiful Roses, among which Bessie Brown, Ulster, White Maman Cochet, Mrs. W. J. Grant, Mrs. John Laing, and Frau Karl Druschki

were very fine; Messrs. Benjamin Cant and Sons, Colchester, were second. Countess of Caledon, Mildred Grant, Bridesmaid, White Maman Cochet, and Mrs. Edward Mawley were the best blooms; the third prize was taken by Messrs. Frank Cant and Co., Colchester. Their Duke of Edinburgh, Killarney, Mrs. John Laing, and Suzanne Marie Rodocanachi were very good blooms. There were no more exhibits in this class.

Forty-eight blooms, distinct varieties: First, Messrs. J. Burrell and Co., Cambridge, with flowers of good form though somewhat small. Frau Karl Druschki, Sultan of Zanzibar, Mildred Grant, Caroline Testout, Ethel Brownlow, and Bridesmaid were the best; Messrs. G. and W. Burch, Peterborough, were second with rather large, coarser blooms. Her Majesty was very good, and so were Gladys Harkness, Ulrich Brunner, and Xavier Olibo; Messrs. J. Jefferies and Son, Cirencester, were third. In their stand Innocente Pirola, Ulrich Brunner, and Kaiserin Augusta Victoria were exceptionally good. There was one more entry.

Twenty-four blooms, distinct varieties: First, Mr. George Prince, Longworth, Berks, with some lovely blooms, among which were Souvenir de Pierre Notting, Mrs. Edward Mawley, Captain Hayward, White Maman Cochet, Ulrich Brunner, and Mrs. W. J. Grant; second, Mr. Charles Turner, Slough, with Mme. Graveaux, Her Majesty, Beauty of Waltham, Prince Arthur, and A. K. Williams; third, Mr. John Mattock, New Headington, Oxford. There were five more entries.

Twenty distinct varieties, three blooms of each, in vases: First, Mr. Charles Turner, Slough, with some lovely flowers of Maman Cochet, A. K. Williams, Tom Wood, Mrs. J. Laing, Mrs. E. Mawley, and others; second, Messrs. George Cooling and Sons, Bath, with Killarney, Ulrich Brunner, Marchioness of Londonderry, and Mrs. W. J. Grant as their best; third, Mr. George Mount, Canterbury, his best being Frau Karl Druschki and Mildred Grant. There was one more entry.

TEAS AND NOISETTES.

Twenty-four blooms, distinct: First, Mr. George Prince, Longworth, Berks, with such varieties as White Maman Cochet, Comtesse de Nadaillac, Souvenir de Pierre Notting, Maréchal Niel, Mrs. E. Mawley, Bridesmaid, and others, beautifully shown; second, Messrs. B. R. Cant and Sons, Colchester, with some fine blooms also of such as Mrs. Mawley, Maman Cochet, White Maman Cochet, Mme. Cusin, and others; third, Messrs. Frank Cant and Co., Colchester. There were no more entries.

Twelve blooms, distinct: First, Messrs. J. Burrell and Co., Cambridge, with some good flowers of Comtesse de Nadaillac, Mrs. Edward Mawley, Souv. de Pierre Notting, and others; Mr. John Mattock was a good second. He had excellent Etoile de Lyon, Medea, and Mrs. E. Mawley; Messrs. J. Jefferies and Son, Cirencester, were third. There were two more entries.

Fourteen distinct varieties, three blooms of each: First, Mr. George Prince, Oxford, with a lovely lot, Mrs. Edward Mawley, Innocente Pirola, and Maréchal Niel were among the best; Messrs. Frank Cant and Co., Colchester, were second, Mrs. E. Mawley, Mme. Hoste, and Mme. de Watteville were very good; the third prize was awarded to Mr. John Mattock. There was one more entry.

EXHIBITION ROSES IN VASES.

Twelve distinct varieties, seven blooms of each: First, Messrs. Frank Cant and Co., Colchester, with some splendid blooms. Mrs. W. J. Grant, Killarney, Mrs. E. Mawley, Gladys Harkness, and Mildred Grant were some of the best; Messrs. A. Dickson and Sons, Limited, Newtownards, were second, having fine blooms of Ulster, Florence Pemberton, Mrs. W. J. Grant, and others; third, Mr. George Mount, Canterbury, who also showed well. There were several more entries.

Nine distinct varieties of Teas and Noisettes, seven blooms of each: First, Mr. George Prince, Longworth, Berks, with beautiful Comtesse de Nadaillac, Souv. de Pierre Notting, Maman Cochet, White Maman Cochet, and Mrs. Mawley; Mr. George Mount was second, and Mr. John Mattock third. There were no more entries.

GARDEN ROSES.

Thirty-six distinct varieties, three bunches of each: Mr. John Mattock, New Headington, Oxford, won the first prize with a splendid display of Lady Buttersea, Irene Watts, J. B. Guillot, Marquess of Salisbury, W. Allen Richardson, Souv. de Catherine Guillot, Queen Mab, Mme. Ravary, Liberty, and others; Messrs. Paul and Son, Cheshunt, were second with many good bunches, though somewhat lacking colour. There were no more entries.

Eighteen distinct varieties: First, Mr. George Prince, Longworth, Berks, with lovely bunches of Mme. Abel Chatenay, Crimson Rambler, Souv. de J. B. Guillot, and others. Mr. Charles Turner, Slough, was a good second, Crimson Damask and Lady Curzon being very beautiful; third, Mr. George Mount, Canterbury.

Eighteen distinct summer-flowering Roses in bunches: First, Messrs. George Cooling and Sons, Bath; Una was the best, and Rosa Mundi, Queen Alexandra, Mme. d'Arblay, and Princess Marie were also good; second, Mr. Charles Turner, Slough, with excellent Crimson Rambler, Lady Sarah Wilson, Crimson Damask, and others; third, Messrs. Paul and Son, Cheshunt. There were two more entries.

Eleven distinct varieties, not less than three bunches of each: First, Mr. George Mount, Canterbury, with good Marquis of Salisbury, Liberty, Rampant, and Killarney; second, Mr. John Mattock, his Leuchtstern and Mme. Abel Chatenay being good; third, Messrs. Paul and Son, Cheshunt. There were three more entries.

OPEN CLASSES.

GENERAL SECTION.

Twelve Hybrid Teas, distinct: First, Messrs. Alexander Dickson and Sons, Limited, Newtownards, with beautiful Kaiserin Augusta Victoria, Bessie Brown, Killarney, Mrs. W. J. Grant, Alice Lindsell, and others; second, Messrs. B. R. Cant and Sons, Colchester; equal third, Messrs. Paul and Son, Cheshunt, and Messrs. Frank Cant and Co., Colchester. There were seven more entries.

Twelve blooms of any white or yellow Rose in a vase: First, Messrs. Frank Cant and Co., Colchester, with lovely Frau Karl Druschki; second, the King's Acre Nurseries, Limited, Hereford; third, Messrs. B. R. Cant and Sons, Colchester, both showing the same variety. There were several more entries.

Twelve blooms any Rose other than white or yellow: First, Messrs. Frank Cant and Co., Colchester, with Mildred Grant finely shown; second, Messrs. Benjamin Cant and Sons, Colchester, with Mrs. Edward Mawley; third, the King's Acre Nurseries, Limited, Hereford, with Mildred Grant. There were several more exhibits in this class.

Nine blooms any new Rose: First, Messrs. Frank Cant and Co., Colchester, with some lovely blooms of Mildred Grant; second, Messrs. Alexander Dickson and Co., Limited, Newtownards, with the same variety; third, Messrs. B. R. Cant and Sons, Colchester, who showed Frau Karl Druschki. There were five more entries.

Twelve blooms of new Roses: First, Messrs. B. R. Cant and Sons, Colchester, in whose stand were Ben Cant (very rich colour), Mildred Grant, Mamie, Florence Pemberton, Frau Karl Druschki, and others all finely represented. Messrs. Frank Cant and Co., Colchester, were second, with Commandant Felix Faure and Frau Peter Lambert as the best. Messrs. Paul and Son, Cheshunt were third, Ben Cant being their finest bloom. There were two more entries.

NEW SEEDLING ROSES.

In the class for not less than six trusses of any new seedling Rose or distinct sport, a gold medal was awarded to Mr. O. G. Orpen, West Bergholt, Colchester, for a new seedling, a climbing Damask variety named Mrs. O. G. Orpen, with large, rich rose-pink blooms, the bunch of yellow stamens adding to its beauty. A card of commendation was given to Irish Harmony, a large single cream-coloured bloom, yellow in the centre, and with good dark green foliage, from Messrs. Alexander Dickson and Sons, Newtownards. A

gold medal was given to Messrs. Dickson for a new seedling Rose Dean Hole, a lovely flower, perfectly formed, a good deal in the way of Mrs. Mawley, but lighter and more delicately tinted. A card of commendation was also given to Messrs. Dickson's new seedling Rose Lady Betty; the flowers are fawn colour, tinged with rose, which is much deeper in the centre.

Twelve vases of new seedling Roses or distinct sports: A challenge cup off-red by Sir George Barham as the prize in this class was awarded to Messrs. Alexander Dickson and Sons, Newtownards. Among other new ones we mention Harry Kirk, creamy yellow with apricot-yellow centre (H.T.), and Mrs. John Bateman, rich rose-pink, the petals much recurved (H.T.) as two lovely varieties which undoubtedly have a future.

DECORATIVE CLASSES.

Arch decorated with long sprays of not more than two varieties of climbing Roses: Messrs. Paul and Son, Cheshunt, were first with a very attractive exhibit. One side of the arch was clothed with Leuchtstern and the other with Wallflower, a semi-double rosy red variety, evidently very free. Mr. George Prince, Longworth, Berks, was second, he used Leuchtstern and The Garland. The third prize was awarded to Mr. Charles Turner, Slough, who used Crimson Rambler and a white Polyantha.

Twelve varieties of single Roses: First, Messrs. Frank Cant and Co., Colchester. Macrantha was the best bunch in the exhibit, and Leuchtstern, Lady Curzon, and Moschata alba were good also. Mr. John Mattock, New Headington, Oxford, was second with rather less striking bunches; the third prize was awarded to Messrs. Paul and Son, Cheshunt. There were two more entries.

Nine distinct varieties, suitable for buttonholes: First, Mr. John Mattock, New Headington, Oxford; second, Mr. George Prince, Longworth, Berks; third, Mr. George Mount, Canterbury. There were two more entries.

AMATEURS.

GENERAL SECTION.

Thirty-six blooms, distinct: First, winning the National Rose Society's Champion Challenge Trophy and replica, E. B. Lindsell, Esq., Hitchin, with beautiful flowers of uniform quality. Perhaps Comtesse de Nadaillac, Ulrich Brunner, Marquise Litta, White Maman Cochet, Louis van Houtte, Bridesmaid, and Frau Karl Druschki were the best; Conway Jones, Esq., Gloucester, was second. Although a good way behind the first prize stand, Frau Karl Druschki, La France, and Mrs. John Laing were very fine blooms; the third prize winner was the Rev. J. H. Pemberton, Havering-ate-Bower, who had very good Comte Rainbaud, Mrs. John Laing, Fisher Holmes, Duchess of Albany, and others. There were three more entries.

Twenty-four blooms, distinct (extra class): First, F. Dennison, Esq., Birmingham, with very good blooms of General Jacqueminot, Marquise Litta, Mrs. John Laing, White Maman Cochet, and others; second, Mahlin Whittle, Esq., Belgrave, Leicester, with Her Majesty very fine; third, Conway Jones, Esq., Gloucester, who showed several good blooms. There were two more entries.

Twenty-four blooms, distinct: First, E. B. Lindsell, Esq., Hitchin, with finely coloured blooms of Captain Hayward, Fisher Holmes, Alfred Colomb, Mrs. Mawley, and others; second, the Rev. J. H. Pemberton, with excellent Frau Karl Druschki, Mrs. John Laing, and Tennyson; third, O. G. Orpen, Esq., Colchester.

Twelve distinct varieties, three blooms of each: First, E. B. Lindsell, Esq., Hitchin, with splendid Frau Karl Druschki and others; second, J. Dennison, Esq., Birmingham, whose Caroline Testout and Mrs. John Laing were very good; third, Conway Jones, Esq., Gloucester.

Nine blooms of any Rose except Tea or Noisette in vase: First, E. B. Lindsell, Esq., with Alice Lindsell; second, H. V. Machin, Esq., Worksop; third, the Rev. J. H. Pemberton.

GROWERS OF LESS THAN 2,000 PLANTS.

Twenty-four blooms, distinct: First, E. M. Eversfield, Esq., Horsham, with some excellent

blooms, particularly of Kaiserin Augusta Victoria and Mrs. E. Mawley. This stand won the challenge cup offered to growers of less than 2,000 plants. Second, Alfred Slaughter, Esq., Steyning, Sussex, with very good blooms; third, R. F. Hobbs, Esq., Worcester.

Eight distinct varieties, three blooms of each: First, R. F. Hobbs, Esq., Worcester, who showed well, Mildred Grant being excellent; second, E. M. Eversfield, Esq.; third, Alfred Slaughter, Esq. There were several other exhibits, all good.

Seven blooms of any Rose, except Tea or Noisette: First, R. F. Hobbs, Esq.; second, E. M. Eversfield, Esq.; third, R. E. West, Esq., Reigate.

GROWERS OF LESS THAN 1,000 PLANTS.

Twelve blooms, distinct: First prize (Grahame Memorial Plate), C. F. H. Leslie, Esq., Hertingfordbury, with very good blooms of Mrs. W. J. Grant, White Maman Cochet, Alice Lindsell, and others; second, C. Page, Esq., Enfield, with lovely blooms of Mrs. Mawley, Lady M. Beauclerc, and others; third, A. E. Farnden, Esq., Sutton, who also showed well. There were sixteen more exhibits in this class, and many of them contained very good blooms.

Five blooms of any Rose except Tea or Noisette in vase: First, G. Moules, Esq., Hitchin, with splendid Mildred Grant; second, Courtenay Page, Esq., Enfield, with Mildred Grant; third, G. A. Hammond, Esq., Burgess Hill, with Frau Karl Druschki.

GROWERS OF LESS THAN 500 PLANTS.

Nine blooms distinct: First (and piece of plate presented by the Ben Cant Memorial Fund), William Upton, Esq., Belgrave, Leicester, with beautiful blooms, especially of Ulster, Mme. Jules Graveureux, Frau Karl Druschki, and others; second, R. W. Bowyer, Esq., Hertford Heath, with fine flowers also; a good third, Mrs. E. A. Moulden, Stevenage. There were nineteen other exhibits in this class.

Six blooms, distinct: First (and piece of plate presented by Messrs. Burrell and Co., Cambridge), H. H. Gifford, Esq., Edensor, Surrey, with very good blooms; a good second, A. C. Turner, Esq., Edgware. We could find no third prize winner. There were four more exhibits.

Five blooms any Rose, except Tea or Noisette, in vase: First, A. C. Turner, Esq., Edgware, with Frau Karl Druschki; second, R. W. Bowyer, Esq., Hertford Heath, with Frau Karl Druschki; third, Dr. A. H. Williams, Harrow, with Caroline Testout.

GROWERS OF LESS THAN 200 PLANTS.

Six blooms, distinct: First, W. R. Hammond, Esq., Burgess Hill, Maman Cochet and Bessie Brown being excellent; second, F. J. Nightingale, Esq., Sutton; third, Miss A. M. Lucas, Hitchin. There were nine other exhibits in this class.

EXTRA CLASSES.

Twelve blooms, distinct: First (and Challenge Cup presented by the late C. J. Grahame, Esq.), George Moules, Esq., Hitchin, with very good blooms, Ulrich Brunner, Frau Karl Druschki, and Mildred Grant being especially fine; second, William Kingston, Esq., Bedford, with beautiful Roses also; third, G. A. Hammond, Esq., Burgess Hill. There were nine other exhibitors.

Four distinct varieties, three blooms of each: First, William Kingston, Esq., Bedford, with excellent Mrs. John Laing and others; second, the Rev. F. Page Roberts, his Frau Karl Druschki being very good; third, John Bateman, Esq., Highgate. There were numerous other competitors.

Twelve blooms, distinct: First (and silver cup given by Messrs. R. Harkness and Co., Hitchin), Mahlon Whittle, Esq., Leicester, with good flowers; second, R. F. Hobbs, Esq., Worcester; third, the Rev. J. H. Pemberton. This class was well contested.

Six blooms, distinct: First, Frank Spencer, Esq., Harrow; second, W. Lenn West, Esq., Sutton; third, Frederick Bostock, Esq., Northampton.

Six blooms, not less than four varieties: First, E. P. Sugden, Esq., Winchmore Hill, his Mrs. Edward Mawley being very fine; second, Mrs.

Harvey Thomas, Windlesham, with splendid Mrs. Mawley also; third, Thomas Halsted, Esq., Reigate. There were many more competitors.

Six blooms, distinct: First, W. Chapman, Esq., Warminster; second, Miss Margerison, Hythe; third, F. J. Nightingale, Esq., Sutton.

Six blooms, distinct, grown within eight miles of Charing Cross: First prize and challenge cup, E. R. Smith, Esq., Muswell Hill, N., with good blooms of Marie Baumann, Caroline Testout, Mildred Grant, Mrs. J. Laing, Frau Karl Druschki, and Ulrich Brunner; second, Miss B. H. Langton, Hendon; third, J. T. Thompson, Esq., Bounds Green, N.

Six blooms of new Roses: First, R. F. Hobbs, Esq., Worcester, with Mildred Grant, Frau Karl Druschki, Alice Lindsell, and others; second, Conway Jones, Esq., Worcester; third, the Rev. J. H. Pemberton.

Messrs. Paul and Son, Cheshunt, were given third prize for a group of Roses in pots. We could find no other exhibits in this class.

TEA AND NOISETTE SECTION.

Five entries were forthcoming in the class for eighteen blooms, distinct. They were a very fine lot altogether, the stand giving Mr. A. Hill Gray, Bath, first prize being a beautifully even lot of blooms. Mrs. E. Mawley (very fine), The Bride, White Maman Cochet, Souv. d'Elise Vardon, Golden Gate, Innocente Pirola, Bridesmaid, Catherine Mermet, Mme. Cusin, and Souv. de S. A. Prince being the best of his flowers. Mr. O. G. Orpen, Colchester, was a very good second, several blooms in his stand being beautifully finished. White Maman Cochet, Jean Ducher, Innocente Pirola, and Lady Mary Corry calling for notice. A good third was found in Mr. Conway Jones, Gloucester, Maman Cochet, Mrs. Edward Mawley, and White Maman Cochet being excellent.

The challenge cup offered by Messrs. J. Cocker and Sons brought out three excellent boxes of Roses. This competition was open to amateurs, irrespective of the number of plants they grow. In this instance Mr. A. Hill Gray again excelled, winning premier honours with a charming series of blooms. Mrs. E. Mawley, Comtesse de Nadaillac, Mme. Cusin, Souv. d'Elise Vardon, Catherine Mermet, White Maman Cochet, Muriel Grahame, The Bride, Medea, and Bridesmaid being conspicuously good. Mr. Alfred Tate, Leatherhead, was placed second with less even blooms, the petals of several blooms being badly bruised. Exceptionally beautiful, however, were the examples of Mrs. Edward Mawley, Maman Cochet, Miss Ethel Brownlow, and Mme. Hoste; third prize was won by the Rev. F. R. Burnside, Great Stambidge, with a pretty lot of Roses, White Maman Cochet and Muriel Grahame calling for notice.

For eight trebles, Tea and Noisette Roses, there were five excellent exhibits. Mr. A. Hill Gray again proved himself invincible, winning the first prize with a grand lot of blooms superbly staged. The varieties were Mrs. Edward Mawley, White Maman Cochet, Comtesse de Nadaillac, The Bride, Medea, Mme. Cusin, Muriel Grahame, and Maman Cochet, all first-rate. The second prize was won by Mr. Conway Jones, also with a fine set, Maman Cochet and White Maman Cochet being charmingly displayed. A good third was found in the Rev. F. R. Burnside, most of his blooms being just past their best. Maman Cochet and White Maman Cochet, however, were very handsome.

For seven blooms of any one variety, to be shown in a single vase, brought out four competitors. A handsome vase of Mrs. Edward Mawley, from Mr. A. Hill Gray, secured leading honours for that excellent grower. The blooms were large, of good form, and beautiful finish. The Rev. F. R. Burnside was placed second with lovely blooms of White Maman Cochet, and with the same variety Mr. E. M. Eversfield, Horsham, was placed third.

Class 54, for the Prince Memorial Prize (a piece of plate value five guineas) was contested by eight exhibits. Mr. R. F. Hobbs, Worcester, was placed first with a neat and even box of blooms. Souv. Pierre Notting was very finely represented, and among others Ernest Metz, Mrs. E. Mawley (small) Maman Cochet, Souv. de S. A. Prince,

Empress A. of Russia, and Bridesmaid were beautiful. Second prize was won by Mr. Joseph Wakerley, Rainham, with a good stand, though of less even character than those in the first prize exhibit. Maman Cochet, Mrs. Edward Mawley, and White Maman Cochet were finely represented; third prize was secured by Mr. Mahlon Whittle, Belgrave, Leicester, with a pretty set, Cleopatra and Mme. Jules Gravereaux being conspicuous.

Class 55, for five blooms of any one variety shown in a vase. There were six competitors in all, Mr. Joseph Wakerley leading the van with nice blooms of Maman Cochet; second prize was won by Mrs. Alfred Evans, Marston, Oxford, with Mrs. Edward Mawley; and third prize to Mr. C. F. H. Leslie, Hertingfordbury, with smaller examples of White Maman Cochet; the two latter classes were open only to growers of less than 500 plants.

Class 56, for nine blooms, distinct: In the competition for the first prize (piece of plate value two guineas), offered by Mr. A. C. Turner, Dr. T. E. Pallett, Earls Colne, Essex, led the nine competitors with a charming series of blooms. Maman Cochet, Mme. Hoste, Mme. Cusin, Innocente Pirola, Muriel Grahame, Mrs. Edward Mawley, and Bridesmaid were his best blooms; second prize was won by Mr. G. H. Baxter, Brentwood, beautiful finish characterising his flowers. Specially good were Maman Cochet, White Maman Cochet, and Ernest Metz; third prize was placed to the credit of Mr. George Moules, Hitchin, who was close up with a pretty box of blooms. Mrs. Mawley was beautifully represented in this instance.

No less than thirteen competitors were forthcoming in the class for six blooms, distinct varieties. Leading honours fell to the lot of Mr. R. W. Bowyer, Hertford Heath, with a very beautiful lot of flowers. Mrs. Edward Mawley, White Maman Cochet, Maman Cochet, Comtesse de Nadaillac, The Bride, and Mme. de Watteville were in this stand. Second prize was won by Mr. A. C. Turner, Edgware, with a set of nicely finished blooms, The Bride, Muriel Grahame (very good), Ethel Brownlow, and Innocente Pirola being his best. Third prize was secured by Mrs. Times, Hitchin, with pretty, though rather small, blooms of charming form. This was a dainty exhibit.

A spirited competition in the class (No. 58) for five blooms of any one variety, shown in a vase. There were no less than eleven exhibits. The premier position was occupied by Mr. G. H. Baxter, with White Maman Cochet in splendid form. With the same variety Mr. E. J. Holland, Sutton, Surrey, was placed second. In this instance the blooms were rather smaller and less finished than the first prize set. Third prize was won by Mr. W. R. Hammond, Burgess Hill, with lovely blooms of Maman Cochet. The last three classes were open only to growers of less than 200 plants.

EXTRA CLASSES FOR AMATEURS.

Class 59, for four distinct varieties, three blooms of each, for a piece of plate value three guineas, offered as first prize by Mr. George Prince. There were nine handsome exhibits. In this instance Mr. Alfred Slaughter, Steyning, Sussex, was a good first with beautiful trebles of White Maman Cochet, Maman Cochet (lovely), Mrs. E. Mawley, and Souv. de Pierre Notting. Mr. G. H. Baxter, Brentwood, had a nice series of blooms for second prize, Cleopatra, Mme. Cusin, Princess of Wales, and White Maman Cochet were his varieties; third prize was won by Mr. Joseph Wakerley, also with a fine lot of blooms, Medea and White Maman Cochet being seen in excellent condition.

Twelve boxes were staged in class 60, for six blooms in not less than three varieties. This class was open only to amateurs who have never won a prize at an exhibition of the National Rose Society. First prize was won by Mr. W. Lenn West, Sutton, Surrey, with really handsome blooms for a novice at the National Rose Society. Mrs. Edward Mawley, Maman Cochet, and White Maman Cochet were well staged; second prize was won by Mr. C. C. Tunks, Sidcup, with a splendid lot of flowers, Maman Cochet and White Maman Cochet being

excellently shown; third prize was secured by Mr. G. Speight, Market Harborough, with a less even set of blooms, Souv. d'Elise Vardon (very fine) and Mme. de Watteville being his more attractive flowers.

EXHIBITION ROSES IN VASES.

There were but two entries in Class 61 for nine distinct varieties (to include not more than four varieties of Teas or Noisettes), five blooms of each, exhibited in a space not to exceed 5 feet by 3 feet. Mr. A. Hill Gray was a good first, staging grand flowers of Frau Karl Druschki, Mildred Grant, Kaiserin Augusta Victoria, White Maman Cochet, Bessie Brown, Mrs. E. Mawley, La France, Medea, and Souv. de S. A. Prince. Second prize was won by Mr. H. V. Machin, Gateford, Worksop, with a nice series of blooms of more colour—S. M. Rodocanachi, Bessie Brown, Mrs. W. J. Grant, Gustave Piganeau, Marquise Litta, and Caroline Testout were his best blooms.

Class 62, for six distinct varieties, seven blooms of each in vases. There were but two exhibits for the piece of plate, value three guineas, offered by Messrs. A. Dickson and Son, Limited, for first prize. Mr. A. Hill Gray was again to the fore with a charming series of blooms of good quality throughout. White Maman Cochet, Mrs. E. Mawley, Anna Olivier, The Bride, Marie van Houtte, and Mme. Cusin were pleasingly set up. The second prize exhibit was much better displayed, and the blooms were delightfully fresh and beautiful. Innocente Pirola, Souv. d'Elise Vardon, Hon. Edith Gifford, and Mme. Cusin were charming.

Class 63, for five distinct varieties, five blooms of each: A really magnificent lot of flowers gained first prize for Mr. Ernest R. Smith, Muswell Hill, N. In this competition Mr. Will Taylor offered a piece of plate, value two guineas, and the prize was well merited in this instance. Large and handsome blooms of Caroline Testout, Ulrich Brunner, Mrs. John Laing, Mildred Grant, and Mrs. R. G. Sharman Crawford were finely staged. Second prize was won by Miss B. H. Langton with a good lot of blooms. La France, Bessie Brown, Caroline Testout, and Kaiserin Augusta Victoria were the best flowers. The Rev. F. J. Fulford, Flaxley, Gloucester, was third with blooms poorly staged. There were four competitors in this class.

DECORATIVE SECTION.

OPEN TO LADIES ONLY.

The eight exhibits in the class (64) for a decoration of cut Roses for dinner table, arranged with any cut foliage, Ferns, or Grasses, made a very welcome feature in this great display. Delightfully chaste and beautiful was the display made by Miss J. B. Langton, Hendon, N.W. Large blush single Roses (Macrantha) with their yellow stamens made a charming picture, and pleasingly interwoven were sprays of Asparagus Sprengeri, Maidenhair Fern, and Rose foliage and buds. This was not in the least overdone, and well won the piece of plate, value five guineas, given as first prize, by Mr. A. Tate. Mrs. O. G. Orpen was placed second with a pretty arrangement of white and rose-coloured singles, together with buds and sprays of Rose foliage and Ferns. This exhibit lost somewhat by its rather crowded centrepiece. Dainty, indeed, was the third prize exhibit. This came from Miss D. M. Oliver, Tollington Park, and was freely commented on as being "sweet." The variety used in this instance was Waltham Rambler, a pretty rose-tinted single, but the centrepiece was a trifle formal in its outline. Charming, too, was the table of William Allen Richardson Rose from Miss M. M. West, Sutton, Surrey. This was well arranged, Selaginella and Rose foliage and buds adding materially to its attractiveness.

Class 65, for a bowl of Roses arranged with Rose foliage only, was keenly contested, no less than ten exhibits being set up. The first prize was won by Mrs. O. G. Orpen with single Rose Macrantha charmingly arranged. Second prize was won by Miss J. B. Langton with a lovely bowl of La France; and third prize was secured by Mrs. H. E. Molyneux, Balham, with a very handsome vase of Mrs. W. J. Grant deftly arranged.

Class 66 was well filled, ten beautiful vases competing for the piece of plate, value two guineas, offered by Messrs. G. Bunyard and Co. In this instance Mrs. H. E. Molyneux was an easy first with a superb vase of Killarney handsomely displayed, with Asparagus trailing as an adjunct. Second prize was secured by Miss J. B. Langton with Mrs. W. J. Grant pleasingly disposed among Rose foliage, Ferns, and Asparagus Sprengeri. Third prize was won by Mrs. Edward Mawley, Berkhamsted, with Gustave Regis in wonderfully fresh condition, beautifully set up.

In Class 67, for a basket of cut Roses, there were seven exhibits. A rather unusual and quaint-looking basket secured first prize for Mrs. George Lewis, Watford. Second prize was won by Mrs. O. G. Orpen with a lovely basket of Tea Rose arranged with Asparagus fronds; and third prize was secured by Miss J. B. Langton with a pretty basket of Mme. Abel Chatenay, Maidenhair Fern, and Asparagus, lightly and artistically disposed.

GARDEN OR DECORATIVE ROSES.

Class 18, the premier class in the amateur section, was a magnificent effort. The competition was for eighteen distinct varieties, not less than three trusses in each bunch. The first prize was a piece of plate offered by Miss Ellen Willmott, V.M.H., and on this occasion the premier position was occupied by Mr. A. Tate with a superbly fine exhibit. The bunches were very large and handsome, several charming types of "garden" Roses being seen in typical form. The varieties were Reine Olga de Wurtemberg, Alister Stella Gray, Hebe's Lip, Marquis of Salisbury, Lady White, W. A. Richardson, Boule de Neige, Bardou Job, Augustine Guinoisseau, Rêve d'Or, Marquis Balbiano, Perle d'Or, Wallflower, Anna Maria Montravel, Eugenie Lamesch, Gracilis, and Gloire des Rosomanes. Second prize was won by Rev. J. H. Pemberton, Havering-atte-Bower, also with a very beautiful series of bunches, The Garland, Claire Jacquier, Una, Lady Curzon, Macrantha, and Gustave Regis being conspicuously good. Third prize was awarded to Mr. H. V. Machin with a very fresh and beautiful series of bunches, Cecile Brunner, Ma Capucine, Mme. Chedane Guinoisseau, Camoens, Souvenir de Catherine Guillot, and Mme. Pernet Ducher in lovely condition.

Four entries in Class 69 for twelve bunches were an attractive feature: First prize (a piece of plate offered by Mr. Charles Turner) was won by Mrs. A. F. Perkins, Holmwood, Surrey. The bunches were large and in splendid form and condition. Gustave Regis, Marquis of Salisbury, Mme. Jules Grolez, Mme. Pernet Ducher, and Wallflower were finely represented. Miss B. H. Langton was awarded second prize for a beautiful set. Paul's Carmine Pillar, Paul's single white Camoens, Rosa Mundi, Macrantha, and Marquis of Salisbury were in excellent form. Third prize was secured by Mr. J. B. Fortescue, Maidenhead, with large and attractive bunches.

SILVER MEDAL ROSES.

NURSERYMEN.

Best Hybrid Tea.—Mildred Grant, from Messrs. Frank Cant and Co., Braiswick Nursery, Colchester, in the third prize exhibit in the great class for seventy-two blooms.

Best Tea.—White Maman Cochet, from Mr. George Prince, Oxford, in the first prize exhibit in the class for twenty-four distinct Teas.

Best Hybrid Perpetual.—Ulster, from Messrs. Alexander Dickson and Sons, Limited, Newtownards, in the first prize exhibit in the class for forty distinct Roses, three blooms of each.

AMATEURS.

Best Hybrid Perpetual.—Frau Karl Druschki from E. B. Lindsell, Esq., Hitchin, in his first prize exhibit in the class for thirty-six blooms distinct.

Best Hybrid Tea.—Mildred Grant from E. M. Eversfield, Esq., Horsham, in the first prize stand in the class for twenty-four Roses distinct (growers of less than 2,000 plants).

Best Tea.—White Maman Cochet from the Rev. F. R. Burnside, Great Stambbridge Rectory, in his exhibit in the class for eighteen blooms of Teas.

THE GARDEN

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GARDEN PINKS.

THERE is a great deal more to be done in the way of raising useful garden Pinks. They hybridise so freely and come so well from seed that it is a matter for wonder that it has not already been more largely done. Here and there a good Pink appears, but there is nothing like the number and variety that there might be.

Of florists' Pinks there are but a limited number that are really useful garden plants. Ascot is a good Pink, and we want more of the same type and degree of merit. An Ascot of a rather different tone of pink, clearer and with less of the purple quality, would be a great gain. The double flowers that come from the old white Pink, such as Mrs. Sinkins and Her Majesty, are capital garden flowers. In some soils they are perfect, but they often burst the calyx from being too tightly packed with petals. This is a point that raisers should carefully watch. A Pink may easily be too double. These useful sorts are just a little too full. Probably in some soils, calcareous, slaty, or loamy, they may have vigour enough to build up a non-splitting calyx; but in the lighter soils, that suit them less well, the defect is extremely apparent. A white Pink half-way between these and the common white would be a useful plant.

A type that often shows itself in seedling Pinks is sometimes pretty, but not altogether satisfactory. It has petals of flimsy substance, deeply fringed and much too tightly packed. It generally has a weak purple centre. This deep fringing and thin substance habitually go together.

A good Pink of the old "Black and White" pattern is much wanted. Whether the true old plant is still in existence seems doubtful, for repeated appeals to the horticultural public that have from time to time appeared in THE GARDEN have failed to bring it forth, the weak flowers just described being nearly always sent for it. The old Black and White has petals as firm in substance as a Carnation, with a distinct blotch of a chocolate-black colour, turning a little lighter at two days old. The jags at the edge of the petal are few and blunt, never deeply cut, and the flower is not more than half-double, so that the black blotch shows clearly. The white, from the thickness of the petal, is clear and bright.

The probable reason why the greater number of the florists' Pinks are of so little use in the

garden is because so much attention is given to the lacing at the edge. This tends to muddle the flower in the mass, whereas a clear ground colour and a strong blotch show out well, and the plant, however full of flower, is bright and handsome. It is one of the many cases, in which the show and the garden are at variance. As show rules are more or less arbitrary, it seems a matter of regret that their influence should not always be directed to the making of good garden flowers, so that they might work towards the greater and wider usefulness. To obtain prettiness in a single bloom, or even in a single pip of a bloom, as seen in the hand or close to the eye on the show table seems a less worthy object to aim at than the obtaining of a beautiful thing for free garden use.

ROSE SHOWS MORE BEAUTIFUL.

THE recent exhibition of the National Rose Society in the Inner Temple Gardens was the brightest and freshest on record. We are not writing of the beauty of the exhibition flowers, but of the pleasant break away from the traditions of the past. Exhibition blooms were in vast array, and there was the same wholesome competition as in the great Rose years when the show was made up entirely of ranks of green boxes, but with this difference, the garden Roses so-called were everywhere, coming from the trade grower and the amateur in welcome abundance. The society is wise to encourage the exhibition of flowers that fill the home garden with delight, ramble over porch and arch and pergola, and appeal in many ways to those who love their Rose gardens but care little for perfection of form or of colour in the individual bloom. Probably half the members of the society give no thought for the more stereotyped classes of cut flowers, but rejoice in the arches covered with rambling Roses, in the table decorations, vases, and new varieties or hybrids. We have no desire, rather the contrary, to discourage the competition in which colour and finish are the chief attributes. No show could exist without this propelling power, but it must be remembered that the recent acquisition of members is solely due to the desire of the honorary secretary and the committee to recognise the broad principles upon which the National Rose Society is now conducted.

After the great work that has been accomplished in the past, and is being continued in the present, it may seem ungracious to criticise. The exhibition last week almost reached perfection, but its beauty was marred by an absence of a suitable colour association and well-arranged flower groups. The table decorations were spoiled by an irritating

display of boxes underneath the uncovered staging, bare spaces were frequent in conspicuous positions, and there seemed a general absence of cohesion. A Rose show should be a show of beauty, not merely in the individual exhibit, but in arrangement also, and this fault may be remedied with facility by a more liberal display of quiet coloured cloth over the tables and miscellaneous groups. The class for a Rose group failed in its purpose. The truth is pot Roses are things of the past when July approaches, but the English garden is in its fairest dress and can give unstintingly of its choicest flowers, which would have helped at the Rose Show to hide unsightly blanks and give a general freshness and solidity to the whole exhibition. We hope this may be accomplished next year, for much depends upon beauty of arrangement to attract the general public. An enthusiastic exhibitor may care little for arrangement. He sees nothing but the beauty of the individual flower. The wider public, however, who support so strongly the leading exhibitions of to-day think otherwise. It is in no carping spirit we make these remarks, but no one welcomes kindly criticism more cordially than the honorary secretary, whose unselfish and arduous work is so well known to the members of the National Rose Society.

NOTES FROM THE OLD PARSONAGE, GRESFORD.

AS far as this season has gone it is likely to be remembered as one in which hardy plants have shown their capabilities when untouched by frost and biting winds. Of these *Eremurus* have been exceptionally beautiful, and the table below shows their relative time of flowering and approximate heights in the same situation on warm gravel. Here they never attain gigantic proportions, and the lack of rain this summer has further reduced their normal height; they should be moved every third year as they exhaust light gravel soil.

Elwesianus albus is the most beautiful. It appears to be *elwesianus* × *himalaicus*. The plant here appears to be the only one at present in cultivation. The spike is that of a giant *himalaicus*, all the parts being enlarged, and if the flowers were not so closely set it would be as tall, or taller, than *elwesianus*. The stem differs from *himalaicus* in being a rich, deep green, and the foliage is that of *elwesianus*; the flowers are pure white with golden anthers, and very fragrant; it is the first to flower. On many stems dormant buds form; these grow well, and flower two years earlier than seedlings. Plant in boxes of rich mould. I find that *Eremurus* flower strongly the year following removal, if it is done early; they are better lifted and replanted in rich loam every third year; there is no advantage in abnormal

height, and in windy sites it is a manifest disadvantage.

Sort.	First flower opened.	Height. ft. in.
Elwesianus albus	May 25	7 4
Robustus superbus	" 26	7 4
Elwesianus	" 30	8 6
Himalaicus	June 2	6 3
Perry's Hybrid	Injured Approx.	7 0
Wallace hybrid	Last year flowered July 12	6 6
Olge	Not flowered	—
Bungei	July 6 last year	5 0

In other localities the heights and times of flowering given in this table may not hold good, but the relative proportions will be accurate. Of some of the rarer and newer plants

Pelargonium Endlicherianum stands the winter outside without protection and is a fine plant. The rarer *Onosmas* have also wintered well. *Stellulata* and *Thurbai* are masses of bloom, so also is *alba rosea*. *Anthericum yeddoense* is a charming thing. It is a new *Anthericum* from Japan introduced by Mr. Amos Perry. The leaves are sabre-shaped, and the flower is like a magnified Lily of the Valley, with flat, curved stems. Last year with me was, I think, its first flowering in England. Evidently it is a strong and healthy grower.

Pæonia lutea (Franchet).—The year before last I received a plant from M. Lemoine, potted and framed it for the first winter. Last autumn it was planted out, and unprotected till its shoots appeared in the spring. It may be described as a tree *Pæonia* with herbaceous affinities. The flower, as I write, is fully expanded, single, of a rich yellow colour, about the size of *Pæonia tenuifolia*; the foliage is striking and handsome, the stems bearing the buds appear to have the curious habit of curling down so that the bud-apex points to the ground. Its value will be to hybridisers rather than florists.

Verbascum.—We are fortunate in our soil for growing *Verbascum*, they flourish exceedingly. Some hybrids raised here are amongst the finest hardy perennials, notably one, of which the flower, $1\frac{1}{2}$ inches across, is a pyramid of bloom of a soft buff-yellow colour with purple central blotch, the leaves are silvery and tomentose. Hybrids, I think, *olympicum* × *weidemannianum*.

Delphiniums.—In a former communication I pressed upon the attention of your readers the value and beauty of *Delphinium Persimmon*. I use it for bedding with one variety of Hybrid Teas, pure rose, and a bed of eighteen, even height, 6 feet or so, with their elegant spikes of enormous pure blue flowers showing above the Roses cannot be easily surpassed; it is barren, and remains in flower three months. *Belladonna* × *grandiflora*. Messrs. Kelway and Sons raised this fine hybrid. P. H. MULES.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

- July 19.—Saltaire and Tibshelf Rose Shows.
 July 20.—National Sweet Pea Society's Show at Crystal Palace (two days); Hereford.
 July 21.—Halifax Rose Show; National Carnation and Picotee Society's (Southern Section) Show.
 July 22.—Opening of the New Horticultural Hall, Vincent Square, by His Majesty the King; Southampton Caraoation and Picotee Show; Handsworth Horticultural Society's Floral Fête (two days).
 July 26.—Royal Horticultural Society, Committee Meetings in New Hall.
 July 27.—Newcastle-upon-Tyne Summer Flower Show (three days); Cardiff Summer Show (two).
 July 28.—Chesterfield Carnation Show at Birmingham (two days).

Limnanthes Douglasii and Forget-me-not.—I have had a most successful spring bed this past season of *Limnanthes Douglasii* and *Forget-me-not* freely mixed. It was on a south border, and was not only effective but lasted a long time in bloom.—HEDGERLEY.

Chlidanthus fragrans.—This bulb is rarely met with in gardens, though it appears perfectly hardy in South Devon and Cornwall. It is now in bloom with me, and is a very pretty sight. The clear yellow flowers are nearly 3 inches across and are very sweetly perfumed. They are borne two on a stem. The bulbs do well in a raised bed beneath a sunny south wall in a compost of peat, loam, and very coarse sand in equal portions. The *Chlidanthus* is a native of Buenos Ayres.—S. W. FITZHERBERT.

Anthericum Liliastrum giganteum.—There is probably but little difference in the forms of St. Bruno's Lily known respectively as major, superbum, and giganteum, but the one I have under the last name is undoubtedly a handsome and effective plant. Its height is 2 feet, and it bears from twelve to sixteen pure white flowers 2 inches in length and $1\frac{1}{2}$ inches across the mouth, a group being very decorative in the herbaceous border when in full flower. The larger form of St. Bernard's Lily (*Anthericum Liliago major*) is also in bloom, but, though a pretty and graceful plant, its smaller flowers lack the effect of the larger blossoms of *A. Liliastrum giganteum*. Both species are natives of Southern Europe and are perfectly hardy, increasing rapidly in the border.—S. W. F.

Epigæa repens.—This is unquestionably the most cherished wild plant in New England. It is greatly sought after at the blossoming season, which is in the early spring, and the flowers are found soon after the snow disappears. The great esteem in which this plant is held is certainly not due to its showy character, quite the reverse. It is extremely modest, retiring, even shy. It is a hard plant to find, and the excitement of the quest for it doubtless adds much to the pleasures of its discovery. It is difficult, almost impossible, to cultivate. It grows spontaneously only in wild, unfrequented situations. In many places where it was formerly abundant it has ceased to grow, the entire stock having been destroyed by repeated pickings; in fact, it is hard to find this plant at all in the neighbourhood of cities on account of the large number who seek after it every succeeding spring.—F. A. WAUGH.

Croydon Horticultural Society.—The following meetings will be held during the remainder of the year: August 16—"A Discussion on Insects, Injurious and Beneficial to Gardeners," with specimens and illustrations; September 6—"Narcissus," by Mr. C. W. Greenwood, 50, Selsdon Road, West Norwood.; September 20—"Some Phases of Fruit Culture," by Mr. Lewis Castle (gold medallist of the Fruiterers' Company), Ridgeman, Aspley Guise; October 4—"Fruit as a Necessary Food," by Mr. H. Cannell, Swanley, Kent; October 18—"A Horticultural History of the Nineteenth Century" (illustrated), by Mr. J. Harrison Dick, sub-editor "Journal of Horticulture"; November 1—"Birds of Our Gardens" (illustrated with lantern views), by Mr. P. F. Bunyard, 57, Kidderminster Road, West Croydon; November 15—"Vegetables for Exhibition or Yearly Supply," by Mr. J. Friend, Rooknest Gardens, Godstone; December 6—"United Horticultural Benefit and Provident Society," by Mr. G. Dray, superintendent Recreation Grounds, Sydenham, S.E.

Scottish Horticultural Association.—The ordinary monthly meeting of the members of the Scottish Horticultural Association was held in Dowell's Rooms, George Street, Edinburgh, on the evening of Tuesday, the 5th inst. The president of the association, Mr. J. W. M'Hattie, superintendent of the City parks, presided over a large attendance. The table was bright with a number of interesting and beautiful exhibits sent by several of the members and friends. These are too numerous to mention in detail, but a note may be made of the splendid *Pæonies* from the garden of Mr. C. W. Cowan at Dalhousie Castle, Bonnyrigg; the rare and beautiful *Rosa sulphurea* from the fine collection of *Roses*

at the Earl of Haddington's garden at Tynninghame; an interesting new hybrid *Verbascum* from the Inverleith Public Park; a number of *Pansies* from Messrs. Dobbie and Co. of Rothsay; a fine display of *Roses* and English and Spanish *Iris*s, most tastefully arranged, from Messrs. Todd and Co., florists, Edinburgh; herbaceous plants, *Carnations*, and other flowers from Messrs. Jas. Grieve and Sons, Pilgrim Nurseries; and a considerable number of other exhibits, together making an interesting little exhibition. The lecture was on "Herbaceous Calceolarias," and was by Mr. Charles Comfort, Broomfield, who gave a valuable paper, recommending the increased cultivation of these *Calceolarias* and containing many useful cultural details. As Mr. Comfort pointed out, few flowers yield such valuable results with so little expense. Among the errors in cultivation to which special attention was drawn was that of coddling—the most fruitful source of failure. The discussion which followed showed a general agreement with Mr. Comfort's views, and he received a hearty vote of thanks for his paper.

Choisya ternata in Scotland.—The illustration of this shrub in Loró Alverstone's garden, and the accompanying note in THE GARDEN of the 2nd inst., lead me to remark that it may be cultivated much further north than is generally believed. I have had it for several years, and I know of several other gardens in this county where it has done well for some years, while in other parts of the south of Scotland it thrives and flowers perfectly. Along the west and on the east coast also it is frequently to be met with. Recently I saw good specimens of *Choisya ternata* as far north as Perthshire and Forfarshire, and from the appearance of it there I imagine it will succeed in the greater part of Scotland. Such a beautiful shrub should be more largely cultivated in rather light soils, where it seems to thrive better than in heavy ones. It is almost invariably grown as a bush in the north—its proper form.—S. ARNOTT.

The Orange-berried Ivy.—Allow me to thank your correspondent, Mr. E. H. Woodall, page 447, for his valuable note on this Ivy, which has hitherto, as far as my knowledge extends, baffled all attempts to induce it to fruit, at least in this country. With the light, however, brought to bear on its behaviour, one may now hope for better results. I have tried it on a wall in different positions, always with the same result, i.e., a profusion of its neat, pretty leaves, but no fruits. Even when the top of the wall was reached there was no sign of the branches thickening out as the common Ivy does before flowering, and rambling over rock-work it behaved in a similar way. It is, fortunately, a pretty and distinct Ivy for its leaves alone. The growth is slender and clothed with small leaves, sometimes ovate, but usually wedge-shaped towards the point, with short side lobes at the base. The colour is light green, but suffused with brownish grey along the veins. This is generally so noticeable that the entire mass of foliage has quite a greyish tint. Probably, as suggested, the best results will be obtained by growing this Ivy under glass, at all events the experiment is well worth trying.—T.

Himalayan Rhododendrons.—I have read the *resumé* of Sir John Llewelyn's paper on "Himalayan Rhododendrons" with great interest. I note that *R. nobleanum* is said to commence blooming in November and December. This, no doubt, is in South Wales. I fancy it is rather earlier in southern Cornwall, as a gentleman who has what is, I believe, to be the finest specimen of *R. Aucklandi* (*griffithianum*) in the British Isles, and who lives in the neighbourhood of Truro, told me that *R. nobleanum venustum* usually began to flower with him in October. *R. grande*, better known as *R. argenteum*, appears to flower at different times in different localities. Probably its correct blooming period is the end of March, at which time, in 1902, the fine specimen at Trethowan was in full flower and bearing over 300 bloom trusses; but in Mr. T. B. Bolitho's garden at Trewidden, Penzance, *R. grande* flowers in January, for when I was there in February of the present year the flowers were past their best.—S. W. FITZHERBERT.

Success in agriculture and horticulture.—Mr. R. C. Gaut (University of Leeds), who gained the National Diploma of Agriculture at the recent May examinations, has now passed the final examination for the B.Sc. degree (first division) in Agriculture, Victoria University, Manchester.

Pimpinella magna rosea.—I note an award of merit was given to this plant at the last meeting of the Royal Horticultural Society. It is quite a distinct growing border plant, lasting in flower over a long season. With me it grows from 1 foot to 2 feet high, is exceptionally free flowering, and the blossoms are a pretty rosy tint. It is thoroughly hardy and in every way a desirable border plant.—E. MOLYNEUX.

The Vilmorin Memorial.—The committee which has this matter in hand has already received numerous subscriptions. A first list of 5,030 francs, from 424 subscribers, has been published. As well as large amounts of 100 francs, 200 francs, and even 500 francs—as that given by the Société Nationale d'Horticulture de France—the committee has been gratified to receive a large number of small sums, of 2 francs, 1 franc, and even 50 centimes, chiefly from the flower sellers in the markets. This is proof that the idea of the Vilmorin memorial was justified, for it has been favourably received by so many. Subscriptions should be sent to M. Léon Bourguignon, 26, rue Jacob, Paris, who is acting as secretary.

Lilium Kelloggii.—This beautiful Lily has again flowered with me this year, so that one may, I think, consider it established, this being the third year since planting. Here it hardly attains a height of 2 feet, but it is very beautiful and distinct, with its recurved pinkish flowers. I grow it in peaty soil, with some sand, and in a cool and comparatively shaded position at the base of a rockery, which I consider a good place for some of these Lilies. We can hardly have too many of such flowers as this, and, although it keeps a little high in price, *L. Kelloggii* should not be forgotten when planting time comes round again.—S. ARNOTT, *Carsethorn, by Dumfries, N.B.*

Old Warden Park, Biggleswade. This magnificent old place is the residence of Colonel Shuttleworth, and possesses many remarkable features, one of which is the stately trees of huge dimensions, not a few of which must be quite two hundred and fifty years old, and yet in perfect vigour as they stand up strong and tall towards the everlasting sky. There is a large and varied collection of trees, Elm especially attaining to immense size. One veteran has massive lower limbs, in some cases resting upon the ground, in others kept in position by means of strong supports. The visitor interested in arboriculture can find at Old Warden Park a vast material, as interesting as it is varied. There are many very large and handsome specimens of coniferous plants; much that is choice is of fine development. There are some wonderful specimens of Portugal Laurel, the largest measuring 150 feet in circumference, the summit especially crowned with myriads of white blossoms. And then the delightful vistas, the charming glades, the undulations; these and other features combine to form a picture of natural beauty, the details of which are heightened in effect when the sunlight pours its unclouded beauty around it all. There is a very happy blending of evergreen with deciduous trees and shrubs. The Fir tree tribe appear to luxuriate in the soil in which they were planted. The pleasure grounds are of very large extent, and the admirable manner in which they are kept reflects the greatest credit on Mr. Modral and his staff. Close by the estate is the village. Colonel Shuttleworth displays his interest in the villagers by providing them with pleasant cottages, giving employment, &c., and to encourage the social life of the

village he has erected a spacious building to supply opportunities for meeting for various recreations, giving encouragement also by occasionally attending and taking part in social gatherings. During the winter planting and other operations are carried out in order to furnish employment to the labourers on farms close by, who would otherwise be unemployed. Wealth is thus employed in the praiseworthy direction of promoting the common good.—R. D.

St. John's Gardens, Liverpool.—Another addition has been made to the gardens of Liverpool by the opening of St. John's Gardens. The area is not large, but being in the centre of the city makes it most valuable. The Lord Mayor, who presided at the opening function, gave some interesting particulars of the site which was now to be handed over to the public. Alderman Joseph Ball, chairman of the Parks and Gardens Committee, was invited to perform the opening ceremony, and was presented with a massive gold key for this purpose, the gift of the members of the Finance and Parks Committee. Mr. W. Rowlands, Childwall Nurseries, Liverpool, has been entrusted with the gardening department, and has carried out the work most successfully in conjunction with Mr. H. Herbert, superintendent of the Liverpool parks and gardens. The bedding is sunk somewhat below the margins of the lawn for protection from the strong winds that often prevail.

A new horticultural club.—Founded so recently as May last, the Bowden Amateur Horticultural Club gives promise of making its influence felt in the neighbourhood of Altrincham, Cheshire. The club was formed for the promotion of horticulture among amateurs by holding spring, summer, and autumn meetings, for giving lectures, reading essays, and exhibiting flowers from the gardens of members. There are many enthusiastic amateur gardeners in and around the district in which this new club is now working. Many ladies were identified with its formation, the honorary treasurer and honorary secretary and several members of the committee being ladies who take a very keen interest in horticultural matters. Mrs. Duggan, The Downs, Altrincham, is the honorary secretary, and she has already arranged for the summer meeting to be held on Tuesday, the 19th inst., at Sandiway House, Altrincham, and by the kind permission of Mr. G. Faulkner Armitage the

adjoining gardens of "Stamford" will then be open to members. On that occasion, at six o'clock in the evening, Mr. E. H. Jenkins, of Hampton Hill, will read a paper on "Hardy Plants: Their Propagation and Cultivation." The autumn meeting will be held on Friday, September 30 next, when a paper will be read on "Early Outdoor Chrysanthemums" by Mr. D. B. Crane, of Highgate, N. On both of the occasions referred to a good show and an interesting meeting are anticipated, and with the enthusiasm that prevails there is little doubt that the results will be in every way satisfactory.

The double purple Rocket.—There are various forms of this Rocket, but much the best I have seen is that growing at Aldenham, where Mr. Beckett has a strong batch of plants. The variety has received the name of *lilacina plena*. The colour is lilac tinged with rose. Among the charms of this variety are the exquisitely formed flowers. Every petal is seen, which is not the case in other forms. Added to this, the spikes are large. I look upon it as a first-class border plant, especially if planted in a mass.—E. M.

WALL GARDENING.

WE have on many occasions referred to the beauty of wall gardening, and this is an opportune moment, when the seeds are ripening, again to urge upon those with bare walls to clothe them with beauty. Many of the most familiar of rock garden plants may be grown in this way, either by sowing seed wherever the opportunity occurs or by dibbling in little plants in the crevices in spring or in autumn.

Wall gardening, among its many charms and merits, has the great one of making a good show sooner than can be obtained in any other kind of permanent planting. When we plant shrubs and trees we have to wait four or five years before they look at all mature; a border of hardy plants must have at least two years to



FLOWERS ON A LOW WALL IN A BERKSHIRE GARDEN.



A CORNER IN A BERKSHIRE GARDEN WITH FLOWER-COVERED WALL.

come to fair strength; but wall plants, with their roots in the cool depths and their heads in the sun, grow away at once, and reward the careful planter well within the year. Now the means whereby these delightful results may be obtained is within the reach of all. It is only needful to secure that the wall shall be thick enough to allow the moisture to condense within it. The retaining walls are the best, because the soil that is supported by one of their sides stores a constant supply of moisture in immediate contact with them. In such a wall you have only to make a little opening, unless you find one ready, and to introduce the roots of your plant, and to fix it in position with a little moss or sphagnum, or a little rather stiff mould; then you make it all firm by means of a few small angular stones that you can even secure with cement if it should seem desirable. Often it does quite well to sow the seeds of such plants as are easily raised in this way, such as *Erinus*, *Linaria alpina*, &c.; these you introduce into the fissures by means of some rather stiff soil with which the seeds have been incorporated. In a very few years you will have a wall so superbly beflowered that it will draw enthusiastic expressions of admiration both from yourself and from your friends.

In Miss Jekyll's charming book, "Home and Garden," page 116, there are notes about wall gardening which are both interesting and instructive: "One of the best and simplest ways

Rue, Hard Fern, common Polypody, and others, also Houseleeks, Saxifrages, Sedums (Stonecrops), Thymes, and the pretty Sandworts (*Arenaria*).

Sowing the seed as the wall is being made is best, and Ferns should be planted in this way also. A host of plants that are not usually regarded as suitable for this purpose will flourish in a wall, *Verbascum* as an example, which will send up spikes several feet high in this position. Never overplant a wall. A few Snapdragons, Wallflowers, or whatever may be planted are better than attempting too much, especially upon very old walls. In the spring, when seedlings are coming up, it is wise gently to syringe the wall in the evening or very early morning, especially if much exposed to the sun.

USES OF BRITISH PLANTS.

ORCHIDACEÆ.

ORCHIS (*Orchis mascula*, *Morio*, &c.).—The tuberous roots of species of *Orchis* have long been used, especially in the East, for making a drink called salep, or saloop, in England, a word made from the Arabic *Sahlep*. It used to be sold at stalls in the streets of London before coffee supplanted it. The nourishment consists of a substance called bassorine, which replaces starch, the usual reserve food material in tubers, &c. It is said that the best English salep came from Oxfordshire, but the roots were chiefly imported from the Levant.

of growing rock plants is in a loose wall. . . . An exposure to north or east and the cool backing of a mass of earth are just what most alpine plants delight in. A dry wall, which means a wall without mortar, may be anything between a wall and a very steep rock-work, and may be built of brick or of any kind of local stone. . . . A dry wall needs very little foundation; two thin courses underground are quite enough. The point of most structural importance is to keep the earth solidly trodden and rammed behind the stones of each course and throughout its bulk, and every two or three courses to lay some stones that are extra long front and back, to tie the wall well into the bank. A local sandstone is the walling material."

Many, indeed, are the plants that may be grown in the wall, such as the pretty *Erinus*, *Rock Pinks* (especially the *Cheddar Pink*), and the wild *Carnation* (*Dianthus Caryophyllus*), *Aubrietias*, *Alyssums*, *Arabis*, *Iberis*, alpine *Harebells*, not forgetting the wall Ferns, wall

LILIACEÆ.

Asparagus (*Asparagus officinalis*).—This is an inhabitant of salt marshes and sandy shores of Wales, Cornwall, and Dorset, but is rare. The stems are quite inedible wild; the cultivated form is the result of high nourishment.

Field Garlic (*Allium oleraceum*).—This is a rare plant, occurring on the borders of fields in Devonshire, Somerset, and Gloucestershire. It is one of the "Onions" which bear bulbils in the head of flowers. It is the leaves which are used for flavouring stews, &c.

Chive (*Allium Schoenoprasum*).—A very rare plant, occurring in rocky pastures in Northumberland, Lancashire, Brecon, and Cornwall. Though the Chive is the smallest of the Onion tribe, it is said to be the finest flavoured. When cultivated it is the leaf-tops which are cut and used for flavouring or salads. It may be continuously cut, the bed lasting three or four years.

Crow Garlic (*Allium vineale*).—This is found in dry pastures, but is not common. The head produces bulbils. The leaves are the part used, as of Chives.

Ransoms (*Allium ursinum*).—This was formerly eaten as the old couplet says:

"Eat Leeks in Lide*, and Ransoms in May,
And all the year after physicians may play."

Rocamboles or Sand Leek (*Allium Scorodoprasum*).—A rare plant in dry pastures, occurring in North England and Scotland. It has long been cultivated and produces bulbils in the head, as well as cloves to the bulb like the Garlic. Both are used for flavouring or pickles, &c.

Meadow Saffron (*Colchicum autumnale*).—This is not a rare plant in many parts of England, growing in meadows and low-lying pastures. The corm has long been used in medicine, though very poisonous. It is considered of great value for gout and rheumatism.

JUNCACEÆ.

Soft Rush (*Juncus effusus*).—This common plant was of great importance to our ancestors, for it took the place of carpets, and, after removing the skin, the large pith was used for rush-lights. The stems were also employed for mats, baskets, &c.

ARACEÆ.

Lords and Ladies or Cuckoo Pint (*Arum maculatum*).—This has a thick tuber, abounding in starch, though the juice is deleterious. They were formerly collected in the Isle of Portland, the starch being extracted by grating, and after being washed it was sold as Portland Sago.

CYPERACEÆ.

Bulrush or Great Club-rush (*Scirpus lacustris*).—Though called a rush, this is really a sedge. It grows in ponds and lakes, throwing up tall round stems 6 feet or 8 feet in height. These are used for rush-bottomed chairs, mats, hassocks, and in some places for thatching. The principal use is to render casks water-tight by placing them between the staves. The roots, being astringent, were once regarded as of medicinal use.

Cotton Grass (*Eriophorum angustifolium*).—The long silky hairs which surround the fruits are useful for stuffing cushions. It has been woven, but the hairs are too brittle, so do not stand being twisted. Wicks are made of it by country folk.

GRAMINEÆ.

Grasses.—Many genera and species form meadow hay, which need not be here enumerated; but the following Grasses have certain specialities:

Sweet-scented Vernal Grass (*Anthoxanthum odoratum*).—This imparts the peculiar scent to fresh hay; it is the same principle as occurs in the Tonquin Bean and Woodruff. It is a short Grass, not affording much fodder in itself.

Mat Grass (*Ammophila arundinacea*).—This is a common, coarse-growing, maritime Grass on our sea-shores. Its underground creeping stems are valuable in binding the sand together, and preventing its being blown away. It has saved thousands of acres of land. The creeping stems, sometimes 30 feet in length, are made into ropes by seaside

* An old name for March (Chaucer).

dwellers, as well as mats, which have given the name to the Grass.

Annual Meadow Grass (*Poa annua*).—Perennial species of this genus are valuable fodder Grasses, but this annual one is too small to find a home among the usual meadow Grasses; but for such places as the London parks it is invaluable. It seeds profusely, and drives out other plants, so that a constantly-cut lawn may be entirely composed of it, provided it be moist, for it does not succeed in very dry soils. It becomes a perennial under the former conditions.

Reed (*Phragmites communis*).—This well-known and tallest of our native Grasses frequents rivers, lakes, and marshes, bearing long feather-like, purplish panicles with silky hairs, imparting a silvery lustre to them. The stems are used for thatching, being superior to straw. Mats are also made of it, as well as numerous other purposes in fen countries. Pens were originally made of reeds, and, as a fine point was impossible, it accounts for the black-letter type made in imitation of the fourteenth century handwriting.

Couch Grass (*Triticum repens*).—This most troublesome of Grasses on arable land, in consequence of its creeping rhizome or underground stem, becomes a valuable plant in its varieties which frequent sandy shores, for they help, with Mat Grass and others, to bind the sand-dunes and prevent their shifting. On the Continent the creeping stems are collected and sold for fodder, as they contain a good deal of starch, sugar, and mucilage. G. HENSLAW.

THE FLOWER GARDEN.

THE SEED TIME AND HARVEST OF DAFFODILS.

BOTH these operations are practically simultaneous in the Daffodil and Narcissi world, for when the seed pod is ripe enough to be gathered the other extremity, namely, the bulb, is ready to be lifted and stored.

Triennial lifting is advisable for division of bulbs, but storing for any space of time is not an absolute necessity, for without doubt, if bulbs have to be lifted for the purpose of division and transplanting to new ground, the best method is to lift and transplant almost simultaneously. There are those who believe that the old roots afford nourishment to the new ones forming, and there is probably good reason for the statement. One thing is certain, that the sooner the bulb is planted after lifting, and especially the Poeticus section, the better, for any ordinary observer must often have noticed how root effort begins in the store quite early in the summer, say, August, and especially if the weather is damp. The functions of the Daffodil and Narcissi are so numerous that Nature requires to have the bulb in her keeping as long as possible, and in their wild existence they would, of course, remain undisturbed in the soil. It is not quite in accordance with trade conveniences that the public should require early delivery of bulbs, neither would it suit gardeners who do not wish to plant bulbs till their summer beds have shed their splendour.

But to experienced growers and seedling raisers, who follow the fortunes of their special bulbs from start to finish, anxiety is probably at the highest pressure when the time arrives for lifting and transplanting. In any ordinary season there is very little doubt that, with perhaps one or two exceptions, such as, say, Weardale Perfection and King Alfred, whose foliage retains vigour somewhat persistently, all bulbs may be lifted after the middle of June, and all keen growers, whose ranks are annually swelling, and who, of late years, have

been procuring many of the new and beautiful varieties chiefly raised by the Rev. G. H. Engleheart, as well as many of the older and charming sorts, should "ask for and see they get" their bulbs as soon as possible after being lifted.

The paring, peeling, and polishing adopted by many to give the bulbs a well-ripened appearance is quite unnecessary. With the increase of Daffodil and spring flower shows, a word of advice may be useful to those who contemplate staging varieties in the numerous classes of Narcissi. To obtain the best results bulbs should be procured and planted, if possible, before the end of July, and the beds should be prepared now, with all forethought as to flowering time, when heavy gales do so much harm to blooms. Soil is a most important factor, and where very heavy the beds should be well raised, and sand with wood ashes introduced. The foliage of rare kinds should never be cut, as it is the life of the bulb, and committees of spring flower shows should never insist on "own foliage," with

WORK AMONG THE DAHLIAS.

As the ground between the rows of plants will get hard trodden during planting time it is well worth turning the soil up with a fork to within 18 inches of the plants. If heavy rains have fallen since the plants were planted out this work is almost a necessity, as the surface will become perfectly hard as soon as the hot sun dries it. This digging is not very heavy work, as the under soil will be in good condition, and so it is merely a matter of forking over. Plants are now growing very fast, and if they have been well looked after are throwing strong shoots from near the base. For a time these are best simply looped up to one stake, but as soon as they are from 12 inches to 15 inches long this system will become dangerous and other stakes will be needed. In a few cases, however, the plants have a tendency to run up and make a bud, without producing side shoots, as they should. The only thing to do is to wait till the shoots have started a little and then cut off the top two or three joints, which will quickly cause the lower growths to push forward. Now and then the plants produce very fine leaves when young at the expense of strong side growth. By dispensing with these one or two



TREE PÆONY (SO YEARS OLD) IN THE GARDEN OF MR. F. TAYLOR, THE MANOR HOUSE, DISS, NORFOLK.

each variety. In conclusion, July is, or should be, the busy time of the Daffodil and Narcissi enthusiast, and as a sportsman he may afterwards betake himself to any other pastime in which he indulges, with perhaps an occasional eye to the necessities of his "Daffs" as regards weeding, surface hoeing, and top-dressing, until they signify their gratitude by commencing to push up the ground previous to yielding their spring tribute.

Rosemorran.

C. DAWSON.

THE TREE PÆONY.

THE plant shown in the photograph is a specimen in the garden of Mr. F. Taylor, the Manor House, Diss, and late M.P. for South Norfolk. The dimensions are 15 feet in width, and it is about eighty years old, the same age as the Cedar shown in the background. This year there were four hundred flowers of average size, from 8 inches to 9 inches across.

at a time the shoots sooner get the lead. Another important point with bushy growing varieties is to limit the number of shoots, even at so early a stage of growth, as some few varieties produce a number of shoots which are necessarily weakly, and if left fail to lay a good foundation for the future plant. Thin out the worst of these, only tying up the strongest. As soon as it is no longer safe to trust to one stake add two others to form a triangle, or four for a square if time is no object or only a few plants are grown. Three are enough for ordinary purposes. These additional stakes should be well driven into the ground pointing outwards, while the base of the stakes should be rather more than a foot away from the stem each way. A piece of stout string is placed round the stakes, to which eventually the shoots will be tied, so it must be low enough for the laterals to reach comfortably. When these stems are long enough, cut the plant adrift from the one stake which has till now supported it, select, say, six of the strongest shoots as near the ground as possible, and carefully tie them to the string, which, by the way, should be a soft rough string, not hard and smooth. This tying

out is a work which requires some care, as naturally when the shoots are bent out to meet the string it throws a strain on the joint at the main stem, and very often the shoots will break off.

To prevent this not only must the shoot be tied to the string, but another piece of raffia must be placed round lower down and tied back to the main stem, so that the shoot bends instead of slipping out of its socket. Even when every care is taken if a gale should arise considerable damage will be done by breaking the shoots. An important item must now be seen to, namely, covering the soil with rough stable manure; no matter what the weather is during summer, this covering is bound to be beneficial. The material should be, if possible, almost fresh, and having shaken out the shortest spread this near the plants and then cover with straw. The one drawback to this covering is that the birds persistently scratch it about; the only thing which seems to check them at all is to use almost fresh straw on the top. If left undisturbed for any time this manure becomes full of fibrous roots, and should the weather be dry it helps to keep the soil moist. Every effort should be made to keep the plants growing well and healthily, and be sure no thrip exists in the heads of the shoots. The buds must be formed on a healthy strong shoot if a fine flower is to be developed later on. It is seldom that much water is needed before now, and certainly no feeding with manure water, but from the time of planting a syringing overhead at night is always very beneficial.

As soon as the shoots have grown long enough to reach another string, say, 6 inches higher up the stakes, the same process should be repeated as before, except that the shoots will need tying to the string without fear of breaking anywhere. Do not let your wish to see a bloom allow you to leave any buds. Delay this pleasure for a while, or until the main side shoots come into flower.

H. S.

MIMULUS FIRE KING.

This is a brilliant blood crimson variety of the large flowering *Mimulus*, most attractive in colour, and effective both in the open ground and in pots. This type of *Mimulus* has been much improved of late years, and has become a market subject. The finest blooms come on plants grown in pots and placed in the open air, where they can be shaded from the sun for four or five hours during the hottest part of the day. Few plants are so floriferous as the *Mimulus*, and especially so if the seed pods are kept picked off and the plants have every attention in the matter of watering. R. D.

ROCKETS (HESPERIS MATRONALIS.)

The charming lilac-rose double variety of *Hesperis matronalis*, which Mr. E. Beckett exhibited at the last meeting of the Royal Horticultural Society, is a welcome addition to a class of plants of which we possess but few representatives, supplying a tint of colour and size of bloom most acceptable in every way. There is, of course, the single Rocket, which freely seeds itself and becomes a weed in some gardens; the flowers are white with a tint of pink. It has one advantage, it will grow and flower in East End gardens, where the commonest double varieties would fail.

In addition to the fine new variety mentioned above, which appears to be of vigorous habit, there are some fine double forms, the most plentiful being the common white, the flowers of which become tinted with pink; it is a somewhat tall and strong grower, and when well cared for producing fine spikes of bloom. But in Lancashire and adjacent counties there can be met with a highly refined double white, quite pure, and with compact full blossoms, but it does not do well in the drier and hotter south. I have brought it from Manchester on two or three occasions, only to fail with it after giving it every attention both in pots and in the open border; others evidently experience the same difficulty in cultivating it, as it is never seen among collections of hardy plants at its season of flowering. There are also two forms of the

purple Rocket, the common form and one of dwarfier and more compact habit, which was produced many years ago by the late Mr. Henry Hooper of Bath under the name of Compactness, but I have not seen it for several years past; a plant or two of the old double purple was seen at the Drill Hall on the 13th ult., but they were but sorry illustrations.

The double Rocket is a plant which soon succumbs to neglect. It can be kept in condition only by good cultivation, and I have seen the white and purple double varieties shown in superb condition in various places among collections of hardy cut flowers. Successful cultivators recommend that the plants be divided once in two years, and have fresh quarters given them, as change of soil begets renewed vigour. Division is one method of propagation, another is by means of cuttings made of the young shoots when about 3 inches in length. They may be put into a sandy mixture under the shade of Gooseberry and other bushes. The young plants when rooted should be planted out on a nursery bed to grow into size, and it is a good plan to raise young plants annually in order to ensure a supply. Double Rockets greatly appreciate a generous soil, a moist loam deeply dug and well manured, a little mulching during summer, and an occasional dose of liquid manure are desirable during drying weather, applying the latter after a good soaking of water at the roots.

R. DEAN.

THE ROCK GARDEN.

GOOD COLOUR FROM THE ROCK GARDEN.

ALTHOUGH in their native lands there is no colour more beautiful than that of rock and alpine plants, owing to various causes their full value is seldom shown in gardens.

The common way of making what is called a rockery prevents all breadth of grouping. The puerile idea that a rock garden is made by standing stones on end is against all effective planting. You cannot get plants into natural colonies in that way, and the "pockets" prevent them from taking anything like their usually pretty spreading habit. The great majority of alpine plants do not want pockets; they want to be raised above the level in order to escape the surface water. They enjoy having their roots behind stones, but they no more object to a flat surface or gentle slopes than grass does, as may be seen upon the Alps in all directions. If people would put their rocks in simple ways instead of exposing their sides like milestones, it would be much easier to group well and get the full effect of the colour of the mountain flowers. Another mistake long rooted in our habits and which spoils all the mixed borders in the land, is the common way of placing dots instead of easy groups, putting cultivation or good effect out of court. Hence, although we may secure much of the individual beauty of the plant seen close at hand, we do not get the true colour effect, which is the most subtle charm.

BEAUTY OF GROUPING.

In the rock garden at Swaylands in Kent, made by Mr. Drummond in a very spirited way, we saw much that reminded us of good rock plant colour lately, and there were some very impressive effects from the *Gentians*, *Rocky Mountain Phlox*, *Purple Rock Cress* (*Aubrietia*), and rock shrubs that flower at this season. No other plants specially put out for their show of colour could have given such brilliant effects, and we feel sure that owners of rock gardens might get far more enjoyment from them if they adopted these simpler ways of grouping. We do not say that only one kind of plant should be used in a given spot, for two kinds sometimes intermingle with

pretty effect—as they often do in their native haunts—but the great thing is to get

BROAD GROUPS

of each plant, whether it be *A.p. ne Heath*, or the *Purple Rock Cress* which flowers for three months in the spring, or such plants as the common *Woodruff*, which group themselves if we let them. Ten kinds well used are more effective than a hundred species as commonly set out. The plants that may be used are numerous, and their colours refined and beautiful in the highest sense. Beside the true rock plants there are many dwarf shrubs like *Helianthemums*, some of the smaller *Roses*, and mountain shrubs generally, that lend themselves to fine effect in colour.

OTHER ADVANTAGES.

It is not only beauty that we get, but also helpful simplicity in cultivation; for, clearly, if we have to make changes when a plant gets tired of the ground or for any other reason, it is far easier to deal with visible masses than with scattered dots. Another point is that, with the feeble dotting system in use, the weeds take possession of the bare ground, whereas many of these mountain plants, if allowed to spread into groups, unite to keep the enemy out. In every way, therefore, the rock garden is much more easy to manage where the dotting system is set aside. There remains the question of getting enough plants to secure this effect, and happily most things in common use are readily increased by cuttings or division. *Rockfoils*, for example, which are so useful, are easily increased to any extent by division; the little *American Phloxes* also. The *Aubrietias* come freely from seed or cuttings. It is only the rarities which may be difficult of increase. Most things of free growth, as rock plants, are of quick increase by simple means.

COARSE PLANTS.

Coarse plants are too often seen flowerless, too vigorous, or without beauty of colour. These should be removed to the herbaceous borders and the wild garden, or elsewhere, not only because of their ugliness, but as being apt to exhaust the ground near fragile plants, robbing them of moisture and light, or actually overgrowing and killing them—a common sight on neglected rock gardens. Plants growing upon *moraines* or cliffs are not overfed, but at least they have not to fight with the vigorous herbs one too often sees on rock gardens. These also help to mar the colour of the rock garden, breaking up masses and giving a very un-alpine look to the scene.

REPETITION FATAL TO GOOD EFFECT.

The repetition of the same thing all over the rock garden is the surest way to destroy harmonious and right colour. If we are fond of yellow *Alyssum*, or any other showy plant, let it be on a bank or wall in a bold way in one place, or, if it is a plant we are very fond of, we may even have two or three groups of it in different aspects. But if scattered all along the same line of view the result is fatal to any harmony of colour. Again, harsh contrasts should be avoided, seeking rather gentle and harmonious effect. The grouping and massing should never be stiff. Masses might run one into the other here and there, and need not always be confined to plants of one sort. Things of like stature and character might at times be allowed to run together, any hard and fast rule being against good work in gardening as in art. The making and keeping up of a good rock garden is a costly thing, and the least return that can be expected by those

willing to incur the cost is to get the full colour value from the plants.

GRASS.

Often, even in well-formed rock gardens, there are grass paths which are troublesome to keep and less good in their effect than those of stone. Also, in some of our best rock gardens, there are often isolated rocks surrounded by grass, whereas they ought always to rise out of a bed of Thyme, creeping Speedwells, dwarf Heaths, Daphnes, or Milkworts. Some of the most charming scenes in those parts of the Alps richest in plants are where single stones rise, perhaps, only a couple of feet out of ground which is densely covered with dwarf Daphne or Alpine Anemone. If fearful of trampling upon such plants (which we need not always be, seeing how the Thyme upon our heaths will bear trampling), the simplest way is to put a few old flagstones down as a path, placed not more than a foot apart; these permit of passage in all weathers without injuring the plants. Spaces wasted in many rock gardens upon grass or gravel might, if well carpeted, give good colour, and may at least be planted with Thyme, Stonecrop, Rock-foil, tiny Peppermint, and Sandworts. The objection to grass is that it is not nearly so good in effect as the rock flowers, and it has constantly to be cut at the cost of needless labour.

Since writing the above a wall covered with Erinus has come into view, and not for the first time. Its modest colour is most effective when held together in this way, and there could hardly be a better example of the fine colour value that lies half hidden in these mountain flowers. As a dot this plant is without effect; on the wall it is beautiful hundreds of yards away, as well as in every nearer point of view.

W. R. in *Flora and Sylva* (July).

NOTES ON LILIES.

LILIUM NEILGHERRENSE.

A RECENT mention of the Neilgherry Lily on page 431 of the previous volume reminds one how scarce it is now to what it was some time since. About twenty years ago it used to form quite an annual display in the nursery of the late Mr. William Bull at Chelsea, but year by year it became more difficult to get good bulbs, and now it is, I believe, almost impossible. At all events, in Messrs. Wallace's catalogue is the significant announcement—supply doubtful. It is in every way a striking Lily, flowering at any time from August to nearly Christmas, and in the days before retarding Lily bulbs by means of refrigerators was thought of a few flowering examples at the autumn Chrysanthemum exhibitions were always viewed with favour. Though the majority of the long tube-shaped blossoms are more or less of a creamy tint, there is a certain amount of individual variation, for I have had flowers nearly white, and occasionally suffused with purple on the exterior. Mr. Bull used to obtain his supplies from the Neilgherry Hills, and fine bulbs many of them were, one in particular I remember carrying five flowers.

Instructions are often given for the culture of *Lilium neilgherrense*, but as far as my experience extends a supply can only be kept up by continental importations. True, given bulbs of sufficient strength, imported direct from their Indian home, the cultivation necessary to develop the blossoms is a simple matter, but the following year the display will be much less, and after that the plants cannot be depended upon. Freshly imported bulbs that arrive here, say, in February, should without delay be potted in a mixture of loam, a little peat,

and a good sprinkling of sand. The upper part of the bulb may be about half an inch below the surface of the soil. After potting enough water must be given to keep the soil slightly moist, and as the plants grow and roots develop an increased amount is, of course, necessary. A peculiar feature of the Neilgherry Lily is that very frequently the stem, instead of growing upright, proceeds horizontally from the top of the bulb and extends in this way till the edge of the pot is reached, when it takes a downward direction below the ball of earth, finally making its appearance at the side of the pot just opposite to that from whence it entered. Planted out these stems will often run some distance in this way, not only under cultivation but also in a wild state. Besides this Lily, the Burmese species such as *L. bakerianum* or *Lowi*, *L. nepalense*, and *L. sulphureum*, are more difficult to obtain in the form of large bulbs than was at one time the case.

H. P.

THE ROSE GARDEN.

NOTES ON SOME NEW ROSES.

I WILL only preface these notes with the statement that I have seen all the Roses mentioned growing and flowering out of doors—with the single exception of *Etoile de France*, which I have only seen under glass—most of them in the large nurseries, some few in my own garden. If there is any one Rose I should like to draw particular attention to it is *Louis Ricard*. I think we have found at last a really good dark Hybrid Perpetual, and I believe that what Frau Karl Druschki has been to the white flowers *Louis Ricard* will be in the dark section, namely, the finest exhibition Rose we have of its colour. This is high praise, but not, I think, undeserved.

Aimée Cochet.—One of Messrs. Soupert and Notting's introductions of 1902, a Hybrid Tea of distinct promise, colour flesh pink, flowers large and full, with the desired pointed centre, a free bloomer of good growth.

Alice Lindsell.—A Rose I have already referred to in these columns. One of Messrs. Dickson's best, and that is saying a good deal.

Boadicea.—A grand Tea, that was well shown at the Royal Horticultural Society's Temple show by the raisers, Messrs. William Paul and Son of Waltham Cross. A robust Comtesse de Nadaillac.

Bob Davidson.—A Hybrid Perpetual of 1902 of Messrs. Dickson's raising. This Rose is turning out well; its colour is excellent, and it is a good grower.

Commandant Felix Faure.—Sent out in 1902 by Bontigny, this Rose has done well with me. A well-known grower writes: "This is a grand Hybrid Perpetual, of a rich crimson, not unlike Duke of Edinburgh when seen at its best; but in shape unlike that good old Rose, being finely cupped, with pointed centre. It is a fine grower, free and continuous flowering, and I think very highly of it." I have seen some lovely coloured flowers this year of this Rose, quite up to show form. Its colour is exceedingly bright, and it is undoubtedly one of the best of the new Roses.

Edmond Deshayes.—A plant of this has done well with me. The flowers are nearly white, large, and imbricated. Good enough for exhibition.

Earl of Warwick.—This I have already referred to in these columns. Messrs. William Paul will be distributing it in the autumn. It will prove one of those all round satisfactory Roses that are so useful. Quite good enough for the exhibitor's purpose, but at the same

time an excellent garden Rose, vigorous in growth and of free flowering habit. The colour is distinct, true salmon-pink, an offspring of Mrs. W. J. Grant, and raised at the Waltham nurseries of the distributors. It was well shown by them at the Royal Horticultural Society's Temple show in May last.

Etoile de France.—As I anticipated in my first note to you on this Rose, it was exhibited in fine form at the Temple in May, Messrs. William Paul and Son having half a dozen plants in their magnificent collection. It promises to be a good bedder, and no doubt will often be found on the show table. There was a suggestion of purple in the colour in the older flowers that one does not like to see, but I think this is one of the Roses that have come to stay. I have to thank Messrs. Frank Cant and Co. of Colchester for sending me flowers of this and other new Roses, and I am similarly indebted to Messrs. Cooling of Bath and Messrs. Paul and Son of Cheshunt.

Franz Deegan.—This may be described as a pale yellow Kaiserin A. Victoria, but it opens more freely. I have had very pretty flowers on a maiden plant.

H. E. MOLYNEUX.

(To be continued.)

NOTES ON HARDY PLANTS.

BULBS REMAINING DORMANT.

ON page 231, Vol. LXIV., I recounted some experiences of bulbs remaining dormant, and now return again to the subject. The bulbs of *Ornithogalum arabicum* that I mentioned as having shown no signs of growth for a whole year, but still plump and apparently sound, have made no visible sign of growth this year. A day or two ago I uncovered a couple and found them hard and plump, but with no more roots than when I examined them last autumn. How long they will remain in this comatose condition I have no idea, but they show no sign of rotting up to the present. The tuber of *Tropaeolum pentaphyllum* that I wrote of as having died down in the winter of 1903 and shown no sign of growth up to the end of September, when I penned my note, commenced to send up shoots in October, kept growing all through the winter and is now in flower.

S. W. FITZHERBERT.

DIMORPHOTHECA ECKLONIS IN THE OPEN.

THIS plant, generally treated as a greenhouse subject, is far more effective in the open than under glass. In the open air it makes far sturdier growth and flowers profusely. Growing rapidly, effective plants for the outdoor bed may be raised from cuttings in one year if occasionally stopped. Good plants 2 feet in height and as much through can be easily lifted in the autumn, placed in large pots, kept where severe frost will not reach them, and planted out in the spring. This practice is quite applicable to any district in the British Isles. In favoured sites in the south-west the *Dimorphotheca* may be left undisturbed in the open through the winter, though if this should prove unusually severe the plant will probably die. I have a plant in the garden that has been in the open bed entirely unprotected during the whole winter and has suffered no harm, though it has experienced 6° of frost. It is rather over 3 feet in height and of about the same diameter, and in the early portion of the month was a beautiful sight, being covered with some hundreds of its white, purple-backed flowers set off by their violet-blue central discs. In dull weather and in the evening the flowers close, so that it is only when the sun is shining that the plant presents its fullest attractions. A native of South Africa, the *Dimorphotheca* has been styled the Transvaal Daisy, a title often also applied to

the brilliant *Gerbera Jamesoni*, so that amateurs are sometimes puzzled by this similarity of nomenclature.

S. W. FITZHERBERT.

ENOTHERA MARGINATA.

THIS Evening Primrose, known also by the names of *E. eximia* and *E. cæspitosa*, is, without doubt, the most lovely of the entire family. Its great, pure white flowers, cup-shaped and often 5 inches across, emit a delightful Magnolia-like fragrance. The blossoms are, however, very fugitive, opening after sundown and fading before the next noon; but, on a large plant, they are produced in such abundance that their short life is not a matter of much moment. Blooms are reduced continuously

stock, placed in a bed of pure sand in the open, covered with a bell-glass and kept shaded and watered will soon root.

S. W. F.

GROUPING OF HARDY FLOWERS.

IN the garden shown in the illustration there is at least one lesson given by the borders, and that is the value of one single plant or family in certain positions. We may try every kind of mixture and combination, and fail to get anything so good as allowing a plant that likes the place to

of choice shrubs. Where these are newly planted, the Irises are the finest things to furnish the space between the shrubs, which never ought to be jammed together, as they are by many planters. The simple grouping shown is the more beautiful from the way in which the plants creep over the stones in the pathway.

RECENT PLANT PORTRAITS.

THE July number of the *Botanical Magazine* contains portraits of

Vellozia trichophylla.—Native of Eastern Tropical Africa, also known under the synonym of *V.*



A STONE PATHWAY IN FLOWER GARDEN, SHOWING THE BEAUTY OF SIMPLE GROUPING. (From a photograph by Miss Willmott.)

through the three summer months, and for these to be seen to the best advantage the plant should be grown on an elevated ledge about 3 feet from the ground and near a pathway, so that the blossoms are brought close to the eye. A native of the Californian mountains, introduced more than thirty years ago, this *Enothera* can scarcely be deemed hardy, though it has been known to endure fairly severe frosts without detriment. When it is happy in its surroundings it spreads rapidly and often appropriates a space 4 feet square in a couple of years. In some gardens, however, it proves hard to grow and disappears in the winter. It is easily raised from cuttings of the flowering stem, which, if taken off with an inch of the woody

have its own way. This is particularly true of very hardy plants. There is nothing so reposeful to the eye as a group or colouring of one thing doing well. Among the flowers we enjoy in this way are Lilies of the Valley, Solomon's Seal, Globe Flowers, and Irises. The Iris is more valuable than most flowers from its fine form of leaf and evergreen character. The flower of the Florence and the rich purple Iris in the garden are handsome in bold masses. But when the bloom passes away there remain always the fine sword-like leaves, never in the way, and so useful where a little repose is desired. We find them excellent in bold groups

and very short. This is a very beautiful and uncommon-looking plant of the natural order of Amaryllidaceæ, and produces triplets of showy rosy lilac flowers resembling a large Crocus. It is described as a shrub having a thick stock 1 foot or more in diameter, and short, thick, primary branches. The flowering shoots are numerous and

Geonoma gracilis.—Native of Tropical America, also known as *G. weddeliana*. This is a graceful tropical Palm, with bunches of small yellow flowers.

Spathoglottis hardingiana.—Native of North Burma. This is a rather pretty Orchid of the Epidendrum family, with upright panicles of small rose-coloured flowers,

Chrysanthemum ornatum.—Native of Japan, also known as *C. marginatum*. This is a pretty sort, with medium-sized pure white flowers and foliage faintly margined with white.

Pitcairnia spathacea.—Native of Argentina, also known as *Puya spathacea*. This is an interesting but not very beautiful plant, producing tall, branching spikes of pale pink tubular flowers with bluish green front petals.

The first number of the *Revue Horticole* for July figures a group of three pretty varieties of hybrid Clematis named Mme. Raymond Guillot, Mme. Moret, and Mme. Lerocber. These are said to be quite a new race, produced by crossing a herbaceous perennial species *coccinea* with a shrubby species of the Jackmani race. They are described at some length by their raiser, the well-known French hybridist, M. Francisque Morel of Lyons.

The *Revue de l'Horticulture Belge* for July contains portraits of a handsome variety of

Iris pallida, with golden variegated foliage, named *Iris pallida foliis variegatis*, and

Ficus diversifolia, an upright-growing shrub, bearing ornamental golden-yellow fruits of a pyriform shape. They are produced in profusion from the axil of almost every leaf, and stand upright on the branchlet of the shrub. This is a native of the Malay country, and is also known under the following synonyms—*F. spatulata*, *F. deltoidea*, *F. ovoidea*, *F. sideroxillifolia*, *F. lutescens*, and *Erythroygne frutescens*.

W. E. GUMBLETON.

AN ARTIST'S NOTE-BOOK.

IPOMŒA RUBRO-CŒRULEA.

SEVERAL notes have appeared in THE GARDEN concerning this glorious climber, both as to its value as a greenhouse plant and in favoured counties for a wall outdoors. Writing from South Devon last September, "S. W. F." says: "It has been a beautiful sight with me against a sunny wall in the open for the last six weeks, and it seems strange that so few employ this lovely plant for the adornment of their gardens during the late summer and early autumn. The pale blue flowers, from 3 inches to 4 inches in diameter, are the admiration of all beholders, and supply a tint absolutely unique in the summer garden. The best plan is to raise the seeds in heat, placing them separately in 4½-inch pots in porous soil, and to grow the plants on until they are from 18 inches to 2 feet high, with the flower buds formed. They should be planted in rich soil against a sunny wall, care being taken not to disturb the roots in turning them out. Thus treated they receive no check and continue to make growth and to form additional flower buds, readily ascending wire or string strained tightly 2 inches or so away from the wall. It is well to have them ready to put out about the end of June or early July, when hot weather can generally be reckoned on." *Ipomœa rubro-cœrulea* may be grown in this manner at least as far north as the Midlands. In one garden known to us it is used with good effect in the summer garden.

ROUND ABOUT A GARDEN.

DROUGHT AND BAD TEMPER.

HOW a period of drought brings out the quarrelsomeness of plants! "It is easy," says an old proverb, "for the happy to be kind." And, when the perennial border gets sufficient rain in season, how pleasantly the satisfied plants get along with one another! There is a little jostling, no doubt.

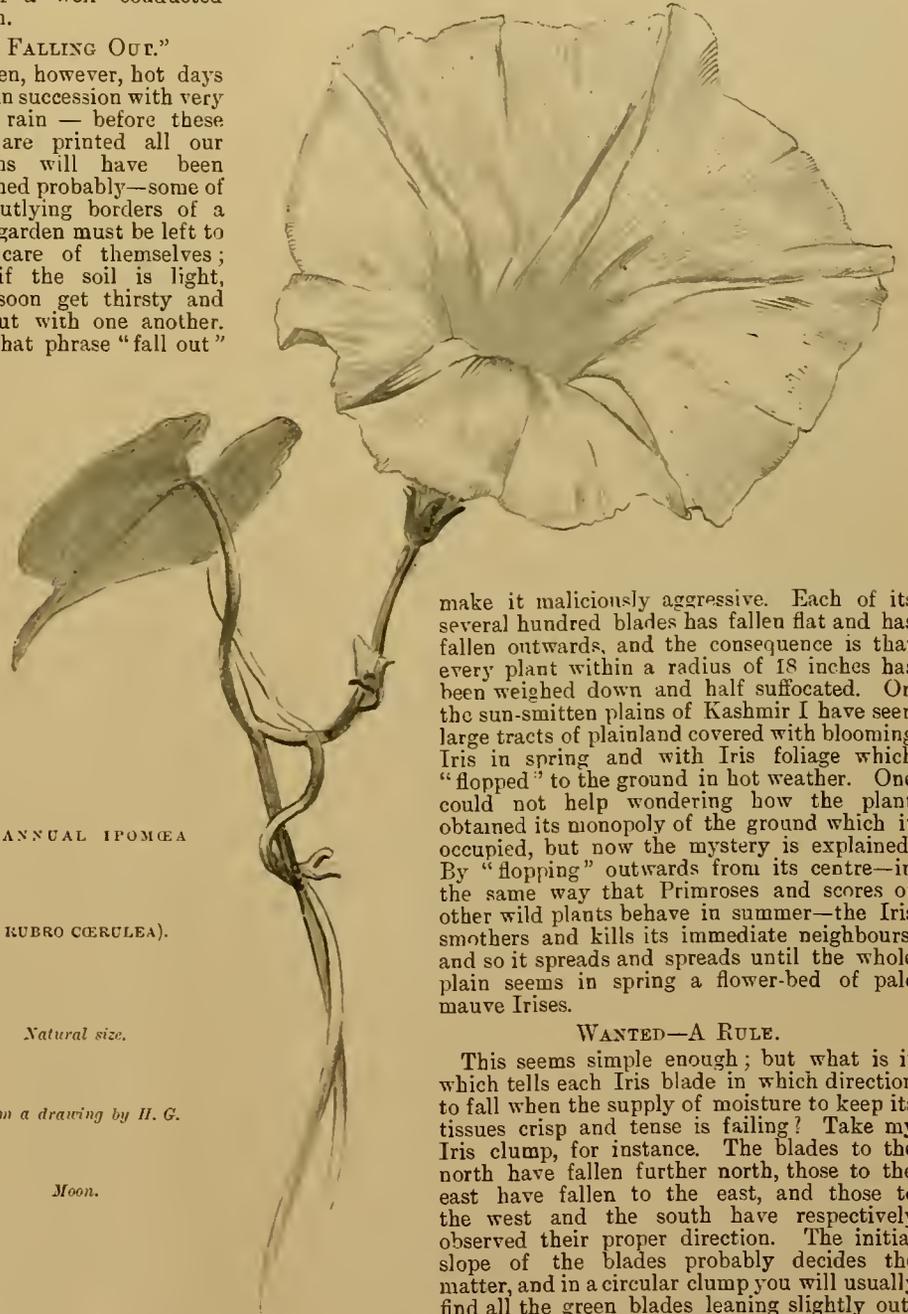
No one can grow fat on good fortune without occupying more cubic feet of space than he did before; and if the border is well filled there is always a tendency of the robust to bulge against their neighbours. This, however, is seldom difficult to correct. Like the conductor of a crowded omnibus, you can always persuade the strong to squeeze up a bit in order to leave room for the weak, and so you may get every inch of space occupied exactly as it ought to be according to the unwritten law of a well-conducted garden.

"FALLING OUT."

When, however, hot days come in succession with very little rain—before these lines are printed all our gardens will have been drenched probably—some of the outlying borders of a large garden must be left to take care of themselves; and, if the soil is light, they soon get thirsty and fall out with one another. And that phrase "fall out"

THE IRIS ON THE WAR-PATH.

For in three wet years the Iris has so prospered that, from a mere slip, it has grown into a large circular clump of matted rhizomes, throwing up a luxuriant ring of broad green blades and a profusion of fine flowers in spring. In any case it would have to be divided this year because it is crowding its neighbours; but the effect of the dry weather has been to



AN ANNUAL IPOMŒA

(I. RUBRO CŒRULEA).

Natural size.

From a drawing by H. G.

Moon.

make it maliciously aggressive. Each of its several hundred blades has fallen flat and has fallen outwards, and the consequence is that every plant within a radius of 18 inches has been weighed down and half suffocated. On the sun-smitten plains of Kashmir I have seen large tracts of plainland covered with blooming Iris in spring and with Iris foliage which "flopped" to the ground in hot weather. One could not help wondering how the plant obtained its monopoly of the ground which it occupied, but now the mystery is explained. By "flopping" outwards from its centre—in the same way that Primroses and scores of other wild plants behave in summer—the Iris smothers and kills its immediate neighbours, and so it spreads and spreads until the whole plain seems in spring a flower-bed of pale mauve Irises.

WANTED—A RULE.

This seems simple enough; but what is it which tells each Iris blade in which direction to fall when the supply of moisture to keep its tissues crisp and tense is failing? Take my Iris clump, for instance. The blades to the north have fallen further north, those to the east have fallen to the east, and those to the west and the south have respectively observed their proper direction. The initial slope of the blades probably decides the matter, and in a circular clump you will usually find all the green blades leaning slightly outwards even in the most prosperous times, when they are almost perpendicular. By this means they are always annexing new territory instead of crowding each other. But what is it which warns them against crowding each other? Why, in fact, does an Iris clump always tend to become a circle spreading outwards?

THE EXPLANATION?

The probable explanation is that the blades have a tendency to lean towards that side from which the roots draw up most moisture, though

might have been borrowed directly from the quarrels of plants, for it describes exactly what they do. At the knuckle end of a long border there is a large clump of German Iris, which, with its neighbours, has always rather a hard time. In addition to the lightness of the soil it stands within range of the encroaching roots of trees; and it is here that the first effects of hot weather are always perceptible. The German Iris at once "falls out," and its neighbours suffer.

you would naturally expect them to lean to the other side, since the outer cells should be first distended. Nature, however, seems to have discovered that the plant's chances in the struggle of existence are improved by the rising sap crossing over to the opposite side to that from which it is drawn, so that, as the ring of Iris roots exhausts the soil within its circle, the blades are all curved outwards, ready to occupy a new frontier of ground, at the point of the bayonet, so to speak. And the habit is so common in plant life that it must be subject to some such rule. Every plant which forms a rosette of leaves upon the ground, like the Primrose or the Plantain, exhibits it in the strongest form. Every kind of wild grass which grows in clumps, every Fern, every plant which rises from a bulb—indeed, it would be difficult to name any herbaceous plant of any kind which does not come under the rule.

A LARGE ENQUIRY.

This suggests enquiry as to the operation of the rule in the case of plants of larger growth. Do trees lean in the direction from which their roots draw most moisture? Of course, in most landscapes the slope of the trees indicates merely the direction of the prevailing wind. But may it not be possible, after allowing for the influence of the wind, to discover by the growth of trees in which direction the supply of water lies, and so deprive the water-diviners of their pretended sphere of utility? It would be a grand principle to establish that the water supply of a neighbourhood is always situated at the point towards which vegetation converges. As we have seen in the case of the Iris, there is some principle at work which causes all the blades to "flop" outwards, and, as all plants which grow in tufts do the same, it seems natural to conclude that Nature has given them the power of turning in the direction from which they draw nourishment. Therefore the position of the water supply in a landscape should be indicated at once to the expert by the drift of the vegetation. This may seem a large conclusion to draw from slender premisses; but what I would insist upon is that when the blades of an Iris clump, or a tuft of grass, or the leaves of a Primrose or Plantain, or even, perhaps, the Mushrooms which make "fairy rings" in the grass, persistently diverge *outwards*, they must obey some rule of wide-reaching scope. Of the Mushrooms it is easy to say that their tendency is to occupy unexhausted ground; but why should the leaves and branches of other plants always diverge unless it is the rule that the sap always crosses over, so as to distend the cells of each on the side opposite to that from which it has been drawn? E. K. R.

THE KITCHEN GARDEN.

WHEN TO PLANT ASPARAGUS.

JULY may appear a rather unseasonable date to offer advice or comment upon the various methods of planting Asparagus, but my remarks will have a special reference to the summer treatment of seedling plants. Transplanting Asparagus frequently proves a more delicate undertaking than anticipated, failures to quickly establish a good bed being far more numerous than successes. At any rate, such is the case in this district, and it is likely to be so until a different method of procedure is adopted. In most instances the beds have been prepared considerably in advance of planting time, and if the soil was of a light or quickly drying character, this would be a correct, or at any rate quite safe, proceeding. As it happens in our case, it is neither the one nor the other. The

soil in the beds being deep, loose, and finely divided soon becomes saturated and cold, very rarely being fit for the reception of the roots when planting time arrives. What makes matters worse, if the roots or crowns are bought in, is that they are usually days before they reach their destination. As a consequence, in addition to being unavoidably mutilated when lifted, they also become very dry, cold winds, and it may be some sunshine completely killing what fresh root fibres may have been formed prior to their being lifted. In this badly crippled state it is not to be wondered at if a good percentage of them fail to recover from the severe check.

Late in March or early in April, according to circumstances, is the usual time for transplanting Asparagus, this being the time when active root and top-growth commences, nor if the fresh stock has to be got from a distance can this rule be well departed from. It would not be wise to plant earlier, the lifting and replanting being done perhaps during the prevalence of cold March winds, while if deferred till late in April or early in May, all the more forward shoots and young roots would be lost in transit. As it is, many of the just moving shoots come to grief, these being very brittle, and the packing must be very careful indeed if it saves them. All this is mentioned, in order that employers may appreciate the difficulties their gardeners have sometimes to contend with, and to be better able to account for any failures that occur. How to avoid these unfortunate occurrences is the next question, and this, I think, can be answered satisfactorily. My ideas, however, on the subject are not novel, but having from experience found it answers well to deviate from the usual routine, I can with confidence recommend others to do the same. After repeated trials and from close observation of what has been done elsewhere, I have arrived at the conclusion that the seed should be sown where the plants are to grow, or else that new beds ought to be formed with one year old plants only. Frequently higher prices are paid for much older roots, the impression being that these will be much the quickest to yield strong shoots for cutting. They may do so in some few instances, but more often than not they make but poor progress, many of the roots failing outright; while others ought not really to be cut from till they have two clear seasons' growth. When the seed is sown where the plants are to remain, the seedlings being well thinned out not later than July, those reserved grow strongly and root vigorously in all directions. During the following summer they will throw up numerous strong shoots, and may be cut from lightly in the third season, though it is better, if possible, to encourage early and strong growth for yet another summer.

The next best method of quickly forming profitable Asparagus beds is to transplant one year old home-raised seedlings, deferring this important work in all cases, especially where the soil is cold and heavy or the position late and cold, till the first fortnight in May. We have found the best results attending the latter practice, and for the future no transplanting will be done before May. Not only is it wise to defer this work till the first shoots are about 1 foot in height, but—in our case, at any rate—we prefer to prepare the beds only a few hours or just immediately in advance of planting. The soil can be returned to the trench, well mixed, and the beds formed evenly, all therefore sinking regularly, or it can be trenched, well broken up, and otherwise made fit for planting at once. Once a heavy rain falls on newly moved soil of a clayey nature, it is not fit to plant for many days or even weeks after, the wiser plan, therefore, being to plant the Asparagus before the soil has become saturated. If the plants are prepared on the place there is no difficulty about it, as, should the weather be unfavourable for the work early in May, it may safely be deferred till nearer the end of the month. Last spring we prepared and planted a raised bed with two year old roots during the first week in April, another being formed a fortnight later, and filled with an equal number each of two year old and one year old plants; while yet a third bed was planted during the second week in May, this time with one year

old plants only. Already the young plants have surpassed the older ones, and, what is still more satisfactory and conclusive, the last-formed bed is much superior to the other two.

One year old plants not having become so strongly and widely rooted as those older are much more easily lifted without breaking many roots, and if replanted carefully as fast as they are got up the check is scarcely perceptible. Ours with quite long shoots scarcely flagged in bright sunshine, and no plants has failed. Those, then, who have raised a few rows of seedlings with a view of forming new beds with them should not neglect the plants in any way. It is not such a great number that is needed for a fresh plantation. Our raised beds are 5 feet wide at the bottom, with sloping edges, and 26 yards long, and in each there are three rows, totalling about 150 plants. There is no necessity to clear the rows of seedlings, but if a portion are left about 18 inches apart, these would either be available for forcing at the end of the second year or else may be left where they are to yield shoots for a few or many years. The seedlings raised this season ought, therefore, to be thinned to 6 inches or 9 inches apart, according to the number required next spring, and all that is further necessary at the present time is to keep the ground about them quite clear of weeds. After a long spell of wet weather clayey soils are apt to crack badly, but a mulching of short manure will tend to prevent this. W.

THE FRUIT GARDEN.

PLUMS AS BUSHES.

WHEN properly managed this is one of the most satisfactory of all methods of growing Plums. Standard trees produce enormous crops sometimes, but as a rule they only bear once in three years, in what are known as good Plum years; for the blossom is destroyed by frost at least one year in three, while another year is used in recuperating after the production of a heavy crop. They do well for market purposes when well established, but for private gardens the bush presents great advantages—the fruit is not blown off by the wind, insect pests can be kept in check, protection can be afforded from the frost, a crop can be reckoned upon almost every year, they are easy to prune, the fruit is much finer both in size and quality, while four bushes can be grown in the space occupied by one standard, the four being different varieties, and so providing a succession of fruit, instead of an enormous quantity of the same sort. In addition to these solid advantages, while the standard is of little or no beauty except when in blossom, some of the large-leaved varieties as bushes, if kept free from insect pests, make really handsome shrubs on a lawn. Much space might thus be utilised which is now occupied by shrubs of little beauty. Growing Plums in this way is such an easy and interesting occupation, and such a source of delight in its results, that some ladies have of late years taken to it with enthusiasm, most of the work being quite clean.

Fortunately, the hardier Plums will grow on almost any soil, though a good clay loam, well drained and resting on a calcareous subsoil, is the most suitable and gives the best results, and, in fact, for some of the tender Gages, is almost necessary for success. It is said that a soil which will grow a good Cabbage will do well for Plums; but a soil containing an excess of humus and a deficiency of lime and phosphates is apt to induce too rank a growth for fruitfulness. The soil is not of such supreme importance to bushes as to standards, as the former can be lifted occasionally and good soil put underneath and around them. Trees so managed are extremely fruitful and can be grown in a very small space. Plums are of varying tastes and constitutions, some succeeding specially well in one district and some in another, and a consultation before planting with a local nurseryman, or some one who grows a number of varieties, with a view to ascertaining if any particular sorts are a

failure, may save some disappointment subsequently. The stocks on which the Plums are grafted is a matter of considerable importance, few people when buying trees, even when choosing them personally, taking any trouble about it. Some nurserymen are fond of grafting on the Brussels stock, as it is such a vigorous grower and trees upon it rapidly attain a good size. It is quite unfit for trees to be grown on the restrictive system, as it produces a superabundance of spray and often a constant succession of suckers, and it takes several years to get them into bearing, even with summer pinching and lifting.

The common Plum is a good stock, for, though vigorous, it is much less so than the Brussels stock. Other more or less suitable stocks are the Mirabelle Petite and Pershore Plum, while for dry, sandy, or chalky soils the Sloe makes a very excellent stock, as it will thrive on a soil upon which the common Plum will only just exist. Bushes should be planted as early in November as possible, care being taken never to plant in wet or sticky soil. A layer of mortar rubbish at the bottom of the hole serves the double purpose of drainage and feeding the trees, while some basic slag, bone dust, or bone meal mixed with the soil will maintain the trees in health and vigour for years to come, lessening their liability to become exhausted by the heavy crops bushes so often bear. No animal manure should be mixed with the soil, as young Plums generally grow strong enough, though a mulching of strong manure is beneficial. Bushes should be 8 feet or 10 feet apart, supposing them to be grown on the restrictive principle, as distinct from the natural bushes market growers adopt.

The pruning of bush Plums is most important, especially during the first two or three years. All shoots not wanted for the extension of the tree should be pinched to three or four good leaves, not counting the small leaves at the base, as soon as the lower leaves are well developed, and the resulting shoots or laterals pinched to one leaf, and so on again if necessary, the whole shoot being cut back to two or three leaves, or one good leaf, the end of August or beginning of September. The extension shoots in young and vigorous trees may be cut back to 6 inches to 12 inches, according to their strength, the weakest cut back shortest, about midsummer or soon after. This lets the sun to the fruit as well as to the developing fruit-buds on the inner parts of the tree, for if the tree remains like a thicket all the summer no fruit buds will be formed in the centre. If the terminal bud on any shoot breaks out the shoot can be shortened to another leaf later on. The removal of the long shoots will give a great impetus to the swelling fruit, and will facilitate picking later on. If the apices gets upon the trees badly, as it rarely does till the end of June, it can be remedied by picking off the affected parts, as it is only the growing extremities which are affected as a rule. If this does not meet the case they should be syringed with soft soap and quassia, or with a solution of paraffin-naphthalene emulsion of soft soap.

Trees should not be allowed to grow more than 6 feet or 7 feet in diameter and 6 feet high, for otherwise picking and pruning become difficult, and the sun does not get to the centre of the tree, which soon becomes barren, not only of fruit but of spurs. One thing to be looked to in pruning is the maintenance of an open centre, so that all the branches, both inside and outside, may be clothed with spurs, and form, in fact, cordons. Trees often grow much too vigorously at first, and if summer pinching is not sufficient to restrain vigour and induce fruitfulness, they should be lifted after the second summer's growth, unless the branches are seen to be well set with fruit-buds. Unless this is done, or the trees bear very heavily, the hard pruning necessary when the trees attain their full size destroys the reciprocal action between roots and branches, and the constant effort of the trees to restore it results in woody growth and barrenness.

The tendency with well-managed bush trees is so to exhaust themselves by producing enormous crops of fruit that they need two or three years' rest. This can be prevented in two ways. Unless the fruit is very thick indeed it is a pity to thin it

when very small, except with one or two very free setters like Early Transparent Gage, Victoria, Orleans, &c., but if thinned as soon as stoning is finished, the fruit picked off will be useful for culinary purposes. This will relieve the trees a good deal, and it can be still further helped by the application of liquid manure in the summer, the easiest way to give this being to sprinkle 1 lb. of good guano on the surface of the soil around each tree, lightly hoe it in, and then give a good watering. This may be done once a fortnight if the trees are carrying a very heavy crop, though if a mulch is put round the trees—an excellent plan to conserve the moisture—the hoeing is not possible, though an excellent thing for letting the air into the soil. In addition to this method of feeding the trees should receive a dressing of basic slag in the autumn at the rate of 5 lb. to the 20 square yards, and if the growth of the tree is weak or insufficient through excessive cropping, some animal manure should be given as well. Trees fed in this way will rarely be unfruitful, and when growers complain of their unfruitfulness after a few years, failure to help the trees in this way is generally the cause of it. It follows that when a tree has exhausted the plant food within reach of its roots in bearing heavy crops that it can produce no more until the roots have gone further in search of more food. Bush Plums are easily protected from frost in the spring by throwing pieces of canvas or other light material over the tops of the trees. There are not generally many nights when it is necessary, as 5° of frost does no harm if it is dry, and therefore it is all the greater pity to lose a crop for want of such a little attention. The loss of the blossom through frost often affects the next year's crop by inducing too luxuriant growth, especially with some of the Gages. The first great secret of success with these trees is to get a good crop of fruit when the trees are young, and so check the tendency to luxuriance of growth; and the second secret is to secure to every part of the trees a full amount of sun and air to ripen the wood and develop the fruit buds.

ALGER PETTS.

GARDENING OF THE WEEK.

FRUIT GARDEN.

MUSCAT GRAPES.

MUSCATS which are now ripe, and those approaching ripeness, should have a slightly drier atmosphere, also plenty of light, by keeping the laterals pinched and the leaves lightly drawn aside from the bunches. Keep the border fairly moist and mulched with litter, and a slight warmth in the pipes at nights, especially in dull or wet weather. Muscats for autumn and winter use will require plenty of heat and moisture, with liberal supplies of warm weak liquid and occasional sprinklings of some approved Vine manure. Give a temperature of 70° at night, 85° by day, rising to 90° with sun-heat after closing. Remove any seedless berries from the bunches which have been overlooked. Give plenty of air in favourable weather, with a light shade, and more especially is this beneficial during the stoning period.

POT VINES.

Pot Vines which are intended for early forcing next winter need more ventilation and a little less moisture at the roots. Good supplies of liquid manure must, however, still be given, the Vines must be kept well syringed to keep down red spider, and the laterals closely pinched.

STRAWBERRIES.

The earliest runners layered, as advised in a previous calendar, are now ready for potting into 6-inch pots. Mix up a compost of fairly heavy loam with an addition of lime rubble, bone-meal, and fine charcoal. This must be rather dry when used, to allow of its being made quite firm. Use clean pots, with a sprinkling of soot over the crocks. This will help to keep out the worms. The plants should be placed in an open position on a firm ash base. The plants should be first well

watered, and afterwards carefully watered until rooted through, lightly sprinkling the plants over through a fine rose can several times daily. As soon as the fruit has been gathered from the beds, and the required number of layers obtained, remove surplus runners. The planting season will soon be here, and the ground for new beds should be prepared. It is best to dig deeply and manure liberally the previous winter, or, better still, to bastard trench it, afterwards planting an early crop of Potatoes, which can be cleared in good time. Select those varieties which fruit best in the district for the main crop. At the same time give a trial to newer ones. The Laxton has done remarkably well outside here. The alpine varieties which have had all the early flowers picked off should now be encouraged by being mulched and well watered with liquid manure.

THINNING FRUITS.

Thin the fruits of Apples and Pears on pyramids and bushes, also on half standards. Pears will not require so much thinning, with the exception of wall trees, where fruits are set thickly. Apples are thickly set in clusters, and will be much improved in quality by being freely thinned.

Impney Gardens, Droitwich.

F. JORDAN.

INDOOR GARDEN.

EUCARIS AMAZONICA.

THAT portion of these plants that six to eight weeks ago were in flower are just completing their growth. It is advisable that such plants should be given a little consideration, and a rest may be given by removing them to a lower temperature and to a position in which they can be afforded more air, and, consequently, a slightly reduced supply of water to their roots. By September next such plants, with careful treatment, should produce another good crop of flowers. To plants in a growing condition afford copious supplies of soot water and an occasional weak dose of guano water, as well as manure liquid. Probably the best time for repotting—and this should seldom be attempted—is just previous to starting them into growth, but late autumn potting is not advised.

TREE CARNATIONS

that have for some time been in their flowering pots are now quite ready for removal from the frame or other protection to the open air. During a hot and dry season it may be advisable to plunge the pots in sand or ashes and thereby reduce the labour entailed in watering; but during a season like the present—and especially in the north—placing the pots on a bed of coarse gravel is advised, previous to which dust the gravel-beds well with soot to check the ingress of worms. As the shoots of vigorous growing plants elongate they are liable to be broken by wind, so that attention to staking will be necessary. Stimulating liquids are quite unnecessary until the pots are getting filled with roots, and at all times the best of care is necessary in affording them water. It is a good plan when placing the plants in the open air to arrange them so that any spare frame-lights may during stormy weather be temporarily placed over them in order to shield them from heavy rains and thus prevent the soil in the pots from getting soddened with water.

VALLOTA PURPUREA.

The best time for repotting these plants is directly their flower-spikes are produced. This is seldom necessary, as the plants dislike being disturbed; but whenever it is done afford them for a little time afterwards a light shade during hot, sunny weather. Keep the surroundings of the plants cool and moist, and do not apply water to their roots superabundantly until leaf growth begins to develop, and at this time a little fertiliser may with advantage be given.

MISCELLANEOUS.

Opportunities are now afforded for staking, cleaning, and otherwise preparing plants generally for all kinds of decorative work. Tradescantias and Panicum are usually in demand, and a stock of these may be easily produced by inserting from eight to ten cuttings in 3-inch pots, and which after propagation may be grown on for use in the

same pots. Train and encourage the shoots of Smilax to grow up thin, stretched-out strings, so that when growth is completed they may be cut away in lengths suitable to any purpose.

J. P. LEADBETTER.

Tranby Croft Gardens, Hull.

KITCHEN GARDEN.

CELERY.

THE remaining trenches may now be filled up. These will provide good Celery through the winter and spring months, and there will be no danger of the plants running to seed, as is often the case from very early sowings. Before lifting the plants, give them a good soaking of water, so that each may be lifted with a good ball of earth. If the weather is very hot, frequent watering will be required till they have become established. It may also be necessary to shade the plants for a few days. This may be done by placing some spruce branches across the trenches, removing them in the afternoons.

SPINACH.

A good sowing of Spinach should now be made for autumn use. This plant will stand better now and should not run to seed so quickly. In order to have fine broad-leaved, vigorous plants the ground for this sowing should be well prepared, and in an open situation. Spinach in many gardens is too often relegated to some out-of-the-way corner or jammed between rows of other crops. Sow 15 inches apart between the rows. A few rows of Spinach Beet may also be got in now. This vegetable is often appreciated in winter and very early spring.

ONIONS.

A plot should now be got in readiness for the sowing of these, prepared the same as for spring sowings. Sow seeds of Giant Rocca, Trebons, or other suitable and hardy sorts. Sow rather thickly, so that a sufficient amount of plants may be had for spring use and for transplanting into beds.

LEEKs.

Those sown in April for the main crop should now be planted out as advised in a former calendar. Ground that has been cleared of early Potatoes or Cabbage will suit them well. Those sown in heat and that are now growing rapidly in trenches may have some soil drawn to the stems. Give frequent waterings with liquid manure with soot added.

CARROTS.

The last sowing of these may be made now. Where Carrots are a troublesome crop, the better plan to adopt is that of frequent sowing. The plants will generally stand until fit for use, though they may be very small. Make the soil firm before putting in the seed. Early Horn is a suitable variety for sowing at this date.

EARLY POTATOES.

Varieties such as Sharpe's Victor, Harbinger, &c., may be lifted and the most shapely tubers selected for sets. Those for seed may be laid out in the sun to green or be placed in a cool airy room. Those for consumption may be put into a pit or dark cellar. Some manure can be got into the land cleared of early Potatoes in readiness for the planting of Cabbage, or other winter crops.

*Hopetoun House Gardens,
South Queensferry, N.B.*

THOMAS HAY.

FLOWER GARDEN.

THE WILD GARDEN.

THE growth of all established plants has been so luxuriant this year that, although, as a rule, the wild garden should be left alone as much as possible, it has become necessary to restrict many of the strongest growers, which, if allowed to grow unchecked, would quickly take the lead and smother many smaller and probably more desirable plants. But all necessary thinning and pruning should be done with the greatest care and judgment, or the work will leave behind a prim stiffoes and formality which will utterly destroy the charm of this delightful phase of gardening. This is the time to make a few notes of any future improvements, and to carefully jot down the names of suitable plants to raise or procure for the purpose. The native Foxglove has made a most attractive show this year, and the introduction of a few plants of the improved varieties serves to render this corner even more attractive. These seed very freely, and after a couple of years there will be numbers with varied colours and markings. An indiscriminate mixture of *Eschscholtzia californica* and its varieties thrives remarkably, and makes a most brilliant show if planted on a dry sunny slope where many other things would shrivel and die. And here again one planting will suffice, for they freely reproduce themselves. If space can be afforded the addition of many of the more showy

hedge plants adds greatly to its interest. In the moister spots the Gunneras have made enormous leaves, and have thrown up numbers of their remarkable cone-like inflorescences. With young plants it is as well perhaps to remove most of them to strengthen the plant, but with the old-established clumps I prefer to let them remain. The vigorous *Impatiens Roylei* (*I. glandulifera*) grows freely under similar conditions, and a bold group of it is very striking. In a rich moist soil it will grow to quite 6 feet in height, and under favourable conditions it becomes naturalised. A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

ORCHIDS.

DENDROBIUM CHRYSANTHUM.

THIS being an early growing species the new growths are now fully developed; a slight rest should be given by removing them to an intermediate temperature. It is not necessary to withhold water, the change of temperature being quite enough to bring about the desired rest. As soon as the flower-buds begin to show themselves the plants should again be taken back to the stove Orchid house till they are fully expanded, when they will benefit by being again removed to a house in which the atmosphere is dryer and cooler. They will be best in such a house as this until the new growths are well advanced, when repotting may be done.

DENDROBIUM DENSIFLORUM AND THYRSIFLORUM AND D. FARMERI.

The growths on these are now sufficiently advanced to enable repotting to be done in a compost of two parts peat and one part sphagnum, well mixed with some sand and small crocks. Pots are very suitable. Half fill them with chopped rhizomes. Keep the compost low enough to allow of a top-dressing with sphagnum. I strongly advise that old specimens that have decayed centres and have many old pseudo-bulbs per lead should be carefully pulled to pieces, and the old bulbs and rhizomes cut away, so that when the plant is rebuilt no lead has more than three bulbs behind it. The plants would then go on for several years. Such radical treatment would not be needed if some are taken away each season. Plants that do not require potting will benefit by having some of the surface material removed and fresh added. From now till the completion of growth the stove Orchid house affords the best home. After that time the temperature of the intermediate house is suitable till the flowers show signs of appearing in the spring.

DENDROBIUM CHRYSOTOXUM AND D. SUAVISSIMUM.

Though closely akin to the foregoing, and with the exception of position when growing, they may be given the same treatment; yet to obtain the best results the growths must be developed in strong light. Only enough shade to prevent the leaves being scorched should be given, and the cooler buoyant atmosphere of the Cattleya house is more suitable than the stove house. When the growths are well advanced is the best time to repot. Newly potted plants require careful watering; otherwise when growing water them freely and spray on all favourable days. It is important that the growth should be completed as early as possible, so that they may ripen early. When the new growth is fully developed very little water will suffice to maintain a healthy plant.

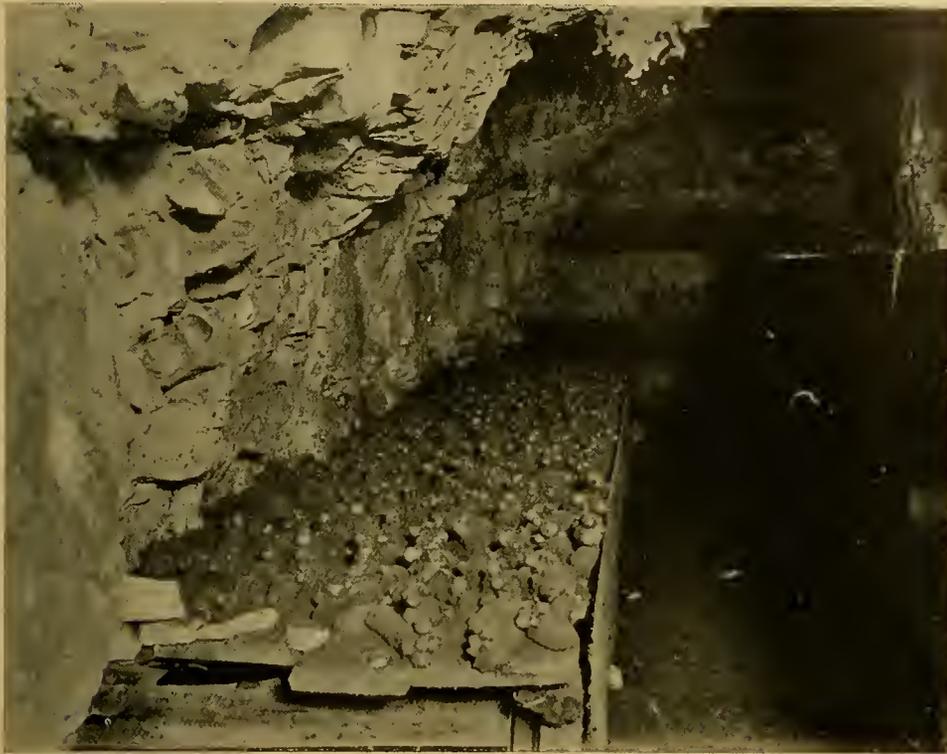
Gasston Park Gardens, Reigate. W. P. BOUND.

NOVEL POTATO PRODUCTION.

FEW people are aware that an entirely new system of growing young Potatoes during the autumn and winter months has been recently discovered. This novel method of Potato culture is likely to become exceedingly popular, as it is so simple that the merest amateur can scarcely fail to be successful in his first trial. Like a good many other things,



TWO YEAR OLD SETS WITH GROWING TUBERS.



VIEW OF CAVE WITH OLD TUBERS ON ROCK.

it was found out quite accidentally, Mr. G. Stanton, steward of Park Place, Henley, being the fortunate discoverer. He came across it in this way: The establishment of which he has charge being a large one, a considerable quantity of potatoes are stored each year. When the tubers are lifted they are carted to some chalk caverns, of which there are several on the estate, and there placed on the floor in heaps. These caverns are, of course, perfectly dark. Now the crop thus garnered a year or so ago was a particularly large one, far more Potatoes being stored away than could be possibly used. On previous similar occasions any surplus had been given away when the following season's crop was lifted. Accordingly, in July of the succeeding year, preparations were made for the removal of all the old Potatoes remaining. It was then discovered that many of the old tubers were simply covered with tiny new Potatoes, very small certainly, but real Potatoes nevertheless. The most promising of these tubers were selected and placed one deep on the floor of another part of the cavern, a little finely sifted dry soil being lightly sprinkled over them. About a month afterwards it was found that the budding Potatoes had increased very much in size, and were, in fact, big enough to gather for the table. They were found to be very much superior in quality to young Potatoes grown in the ordinary manner, being almost entirely free from waxiness. So satisfactory were the results of these experiments that arrangements were made for a large number of old tubers to be placed on rough wooden shelves and arranged in the manner indicated. Throughout the autumn and succeeding winter the needs of the establishment were fully met by young Potatoes produced in this novel manner.

It is found that the old tubers will go on producing small Potatoes for a long time, often until they have little left but the skin. After all the biggest new Potatoes have been picked off the old tubers, they are placed once more in

the mould, the tiny ones being ready for gathering at a later date, thus giving a succession. It is strange that practically no leaf or root action is made from the old Potatoes.

Satisfactory results have been obtained from Potatoes grown in this manner in Mushroom beds, or in frames with a little heat, although artificial warmth does not appear to be at all necessary.

Anyone who can find a dark dry corner, with a fairly even temperature, can grow Potatoes in this manner, only the place must be perfectly dark. Those thinking of experimenting in this direction should at once procure some old Potatoes of a decent size, as they should be started in August. The kind which has given the satisfactory results detailed above is Windsor Castle, though probably any main crop or late varieties would do as well.

A little care should be exercised in the cooking of these Potatoes. It is very important that they should be *slowly* boiled in a saucepan for seven or eight minutes, and after that steamed until done.

NURSERY GARDENS.

MESSRS. STORRIE AND STORRIE,
DUNDEE.

WELL known to horticulturists in the south as well as the north are Messrs. Storrie and Storrie of Dundee and Glencarse, and the exhibits of this firm in London and elsewhere have made some of their special productions widely known. The seed warehouse and offices of the firm are in Seagate, Dundee, where the management is largely in the hands of Mr. Hutcheson, one of the members of the firm. In the Craig Street Flower Market the firm has also a prominent position, so that the local trade is an extensive and increasing one. The

nurseries are at Glencarse, close to the railway station of that name and about twelve miles from Dundee on the railway between that city and Perth. The position of the nurseries is an open one, ensuring firm growth, while the soil is rather heavy, necessitating a good deal of labour and attention at certain seasons, but favourable to the growth of many plants and trees. Messrs. Storrie and Storrie have certain specialities which form leading features in their business. Many of these are familiar to those who frequent the meetings and shows of the Royal Horticultural Society and the shows of the Royal Caledonian Horticultural Society. In the nurseries it is apparent that exceptional quality is the object aimed at. Thus this year the strain of Iceland Poppies, containing the most exquisite tints, will again undergo a drastic selection. This strain, which originated at Glencarse, has been hardly sufficiently fixed, and Mr. D. Storrie expresses himself as disappointed with the proportion of new tints which have appeared from last year's seed. This means that the process of selection must be continued for a little longer. As is well known, Messrs. Storrie have a splendid stock of border Auriculas. These are grown at Glencarse in great breadths, and their "Invincible" yellows are of great beauty and sweetly scented; while the "Nondescript" or variously coloured Auriculas are also general favourites. Primroses and Polyanthus are also specialities, and about 200 named varieties of the latter are cultivated. Hose-in-hose varieties receive special attention, and these flowers are to be seen in great quantities. There are specialities cultivated under glass also, for which there is ample accommodation. The "Invincible" single Begonias are immense in size, and a steady improvement in substance is apparent within the last few years.

Cyclamens, Cinerarias, Primulas, both *P. sinensis* and *P. obconica*, and other indoor florist's flowers are specially studied and rigorously selected for improvement. So are Gloxinias, of which there is a remarkably good strain. A well-known speciality of Messrs. Storrie is the *Streptocarpus*, and great numbers of these are grown and carefully selected for seed. They have been exceptionally fine this year. *Celosias* also receive particular attention, and the plumosa and cristata classes are very good. *Pelargoniums* of different classes are cultivated largely with such favourite greenhouse and stove plants as *Fuchsias*, *Crotons* (*Codiaeum*), *Coleuses*, particularly fine, and other plants suitable for the large general and local trade of the firm. Clematises are largely propagated, and Messrs. Storrie and Storrie are very successful with these.

It is a surprise to those who have only heard of Messrs. Storrie and Storrie in connexion with flowers to find that probably their leading speciality is fruit trees. Mr. David Storrie takes the keenest interest in fruit culture, and his experimental grounds are evidence of the care and thoroughness of this department. A large stretch of the spacious nursery is devoted to trial grounds for the various Apples, Pears, Plums, Cherries, Gooseberries, Raspberries, and Currants in cultivation. Here all the old and new varieties are grown and passed under review, and Mr. Storrie could tell many interesting experiences of the troubles of nomenclature which have fallen to his lot in comparing the varieties. Still more interesting is it to have his opinion of the comparative merits of these as adapted or unsuitable for Scottish growers. The trees and bushes are models of what fruit trees should be.

In the trial grounds there are upwards of 250 varieties of Apples; thirty varieties of Raspberries (one of the most important crops of the great Blairgowrie fruit industry), about sixty Red Currants, eighteen or so White Currants, eighty Plums, many Pears (including the old ones formerly prized in the Carse of Gowrie), Black Currants, and Cherries, while the newer fruits, such as the Loganberry, are also represented. This year at Glencarse it may be said that Apples are a heavy crop, as are Currants, Cherries, and Gooseberries; but Pears, except some of the older and hardier varieties, and Plums are not so good, this being a general experience in the north.

S. A.

THE FERN GARDEN.

MAIDENHAIR FERNS FOR CUTTING.

WHERE there is any great demand for cut fronds of these Ferns, the earlier started plants will no doubt have been run upon somewhat hard from the time their fronds were fit for use. It will do these plants a considerable amount of good if they are for a few weeks kept quite cool and comparatively dry at the root, only just sufficient water being given them to prevent actual suffering. Whilst this is being done all the shabby fronds may be cut off with advantage. In fact, when the plants are quite dry at the roots it will not do them any harm to cut off all the fronds that have been left, although thinning out would be safer where the plants are at all overpotted. These plants after a few weeks' rest will again start into good growth and perfect a crop of most useful fronds for the winter season. It will not be advisable to repot any plants from such a stock now; this would rather tend towards a too soft growth; in fact, Maidenhair Ferns are frequently far too much overpotted when this object of a cut supply is the chief and all-important point. When sufficient rest has been allowed them, the plants should be given a fair amount of warmth, but not with too much moisture in the atmosphere. A pit, for instance, from which a crop of Melons has been taken would be a good position. Here they would be tolerably near the glass, with probably the chance of a slight amount of fire-heat if needed. The all-important matter, however, is to secure a hard growth; this is best done by free exposure to light with a liberal amount of ventilation, and, as before advised, not too much moisture. When the growth becomes free and plentiful, then it must be seen to that they do not suffer at the roots from want of water. In the case of a stock which has not been run upon hard and which has been grown on in the usual way without early starting into growth, the fronds will now be well hardened and in good condition for cutting. These plants will continue to grow for a long time to come, thus forming a good succession of fronds. As in the case of the others, too much shading is a great mistake; this, combined with a moist atmosphere, produces large pinnae, with fronds also that are frequently much too large for use, whilst they never last nearly so long as the smaller ones when cut. Plants grown in this way might, it is true, be considered to be well developed; but this is what is not required from a practical point of view. Besides, light-coloured fronds are always the most sought after by floral decorators as being the most effective. These can only be had when the plants are not grown in too kind a manner. Another point which is overlooked by some growers or not given enough consideration is that of the soil. If too much reliance is placed upon peat there will always be a tendency towards vigorous growth. On the other hand, by using a light fibrous loam or heavier loam that is corrected by the addition of a little peat, the results will be found far more satisfactory. I have previously alluded to keeping the plants in a fairly light position. This may in some cases (it is so in my own case) be somewhat of a difficulty, particularly where the majority of the houses are specially devoted to fruit culture, the occupants of the roofs thus imparting too much shade. Rather than attempt to grow the plants in such positions it will be a better plan to keep the stock in cold frames with a light shade upon the glass if much exposed. Frames can usually be spared at this season of the year. In some instances they are not nearly all to be found in actual use about now, the lights often being for the time stacked away upon their sides. Here, then, those who have a good stock of plants may safely place them when so situated as not to be able to give them a fair chance in their houses. If this were done more than it is, we should not see so many Maidenhair Ferns drawing out a miserable existence in places totally unfit for them. As an instance of this I would only allude to the one fact, viz., that of still continuing to grow the plants in

the heat and moisture of a stove house at all times of the year, frequently over-potted and as much over-watered. Another fine place for securing a good enduring growth is upon shelves, whence the plants have always a free circulation of air playing around them. In such positions they will, of course, be found to dry up quickly, but this should not be any drawback in the least. The basket culture of these Ferns should be more practised where possible. By this mode of culture a good stock of fronds will frequently be in hand when the pot plants have been hard cut, simply because the basket plants are not so accessible at the moment. The smaller growing Maidenheads which assume a roseate tint will be found to be further intensified in colour when grown fairly well exposed to the light and air, although most of these require rather more warmth than the common kind. *A. tinctum*, *A. rubellum*, and *A. Veitchi* are three of the best of these to supply occasional fronds in a cut state. Where seedlings of any kinds are seen to be springing up they should be well cared for, a young stock of these being always useful to supply the place of the older and somewhat exhausted plants. Wherever it is possible and practicable also, I would advise the extended culture of Maidenhair Ferns planted out. This may be done upon bare walls hitherto unsightly by merely fixing some wirework to the face with a little soil; margins also to stages may be planted with decided advantage. Besides *A. cuneatum* for cutting, notes should be taken of *A. elegans*, *A. mundulum*, *A. deflexum*, *A. Williamsi*, and *A. Bausei*. F.

NOTABLE GARDENS.

NOTES FROM A SOMERSETSHIRE GARDEN.

CRICKET ST. THOMAS ranks among the finest gardens in the west. On the rockery there are some fine bits of colour from plants that bloom at this season. Near by is a large bed of herbaceous *Pæonies* in the best of health. Near the house are large beds devoted to all the best kinds of hardy border plants, arranged to keep up a continuous display throughout the year. On the walls some of the best Tea Roses are in bloom. In the kitchen garden are two borders on either side of the central walk, spanned by several Oak arches, over which are growing *Crimson Rambler* and other Roses and climbing plants. At the time of my visit the borders were gay with *Oriental Poppies*, *Canterbury Bells*, *Aquilegias*, *Spanish* and other *Irises*, *Pæonies*, &c. On a high wall I saw the finest crop of *Figs* I have ever seen at this season out of doors in an inland garden. There will be an enormous crop. The first dish of Peas was gathered from *Chelsea Gem*, raised in pots and planted out early, those sown in the open following a week or ten days later. The fruit crops under glass are most promising, Peaches and Grapes especially. There are still some trees of the former planted by the late Mr. Davis forty years ago, and still doing good service. In a large span-roofed vinery there are *Black Hamburg* vines planted on the south side and trained over the roof to the opposite wall. The portion on the north side is doing equally as well as that on the south as regards the crop and growth, but I was told by Mr. Syon that the flavour was not so good. These vines are from twenty to twenty-five years old. Did space permit I would have given a description of a house full of plants in flower in which there was a grand lot of *Streptosolen Jamesoni*. JOHN CROOK.

WESTWOOD, NEWPORT-ON-TAY.

UPON a recent visit to Westwood, Newport-on-Tay, the residence of Mrs. Walker, I found Mr. James Bethel, the head gardener, who is also secretary of the Dundee Horticultural Association, in the midst of his work. The grounds at Westwood, though not very extensively, are most attractive. They are admirably kept and contain many interesting things, while they give evidence of

Mr. Bethel's skill and enthusiasm for his work. The approach is prettily arranged with rockwork, upon which are some good alpine, while a collection of these plants in pans for exhibition is also grown. Bedding out is carried on to some extent with good taste, while hardy border flowers, Ferns, Dahlias, and other good garden plants are all done well. The collection of Ferns is a good one, and contains specimens which have carried off many prizes at shows. Mr. Bethel likes to keep up with the times, and has a border of *Storrie* and *Storrie's new Iceland Poppies*, as well as a number of the same firm's choice *Polyanthuses*, and a collection of the best new *Sweet Peas*, grown as pyramids. Under glass there are good *Pelargoniums*, *Cinerarias*, *Gloxinias*, and other favourite flowers, together with an unusually fine lot of *Begonias*, one of Mr. Bethel's specialities. *Chrysanthemums* in pots are also highly promising. The appearance of the grounds is very pleasing, trees, flowering and other shrubs and climbers, as well as the velvety lawns, all showing careful work. Apples and other fruits are doing as well as anywhere in the district. Of *Strawberries* Mr. Bethel's best varieties are *Garibaldi* and *Royal Sovereign*. There is a splendid strain of prize *Parsley* grown here, and among Peas Mr. Bethel prefers for early work *Croll's Early Defiance*, *Gradus* being another favourite. The new Potatoes are represented by *Northern Star* (from cuttings), *King Edward VII.*, and *Coronation*. S. A.

MISCELLANEOUS.

NOTES FROM A TOWN GARDEN.

TOWN gardens, as well as those in the country, have benefited by the splendid weather of early summer, that is provided the plants have been well supplied with water, which in small gardens is all important; often rain does them very little good, because much of it fails to reach the roots of the plants.

Lilium washingtonianum.—What an attractive Lily this is, and one that is of fairly easy culture. It enjoys a well-drained soil and partial shade; loam with leaf-mould and sand freely intermixed suit it well. The flowers vary considerably in colour; some are wholly white, while others are more or less tinged with pale purple. This is more pronounced as the flowers age. Bulbs planted early this year are now bearing blooms on stems some 2½ feet high. Some find this Lily difficult of cultivation, but I find that if given a sandy soil and not exposed to much sun or wind it thrives very satisfactorily. *Lilium pardalinum*, with its handsome richly-coloured orange purple-spotted blooms, is now also out. While an ideal position for this Lily is in a thin woodland, planted in moist, peaty soil, it is interesting to know that it will grow in a border of loam, leaf-soil, and sand with a northern aspect. How long it will remain in good health is still to be recorded, but at present it promises well. *L. superbum*, another North American Swamp Lily, is doing well in a similar position, and one stem has several flower-buds just about to open. There seems to be no accounting for the behaviour of *Lilium candidum*, as out of a clump of seven bulbs, the growths of which are apparently of equal vigour, only one flowering stem has been produced.

Among *Roses* *Caroline Testout* has been wonderfully good; the large, rich pink, shell-like petals are of splendid substance and make a grand flower. This variety has bloomed exceptionally well this year, and especially those plants with a western exposure and shaded from the south and east. *Margaret Dickson*, too, is a Rose that is admirably suited to the town garden. Homer does well as a half standard, and so do *Charles Lefebvre*, *Crown Prince*, *Camille Bernardin*, and *Comtesse de Ludre*, while among the dwarfs *General Jacqueminot*, *Victor Hugo*, *Victor Verdier*, *Etienne Levet*, *La France*, and *Spencer* are perhaps the best.

Of annual flowers *Linum grandiflorum rubrum* has been very bright; the fairly large, deep red flowers on graceful stems that sway with every breeze make a bright display on a sunny day; on

dull days and in the evening the flowers partially close up. To get a really good show this annual must be sown fairly thickly. I remember having seen outside borders, some 20 yards or 30 yards long, covered with this annual, and when the flowers were open they made masses of red and transformed the bare soil of the Vine borders into masses of red and green. This is an idea that is worthy of imitation in gardens. The Linum is so shallow rooting as not to be able to do harm to the Vine roots, and it serves to keep the border cool to some extent, at the same time making the border a thing of beauty for many weeks, from the time the green growths of the seedlings peep through the soil until the flowers are over. The seedlings do not require thinning out; each is so slender that it takes up little room. To ensure a prolonged display of the flowers of annuals it is most important to give them plenty of water. The more they grow the more they will flower, but if allowed to suffer from drought they quickly cease to do either. *Sidalcea candida*, with flat, round, white flowers on an erect raceme, is very attractive, and is worth more attention than it usually receives. The English Irises are now coming into bloom, and promise to make a lovely display; they are as excellent for the town garden as the Spanish Irises, and most useful for cutting also.

Slugs are usually a bane to the town garden, and some may be glad to know that a sprinkling of common salt kills them quickly. To prevent them reaching seedlings or any other favourite food place a small ridge of salt round the plants to be protected; this seems to keep them away for a time, i.e., until the salt has quite dissolved. Even for some little time afterwards the soil where it has been appears to be distasteful to them, and so they go elsewhere. Armed with a lantern and some salt, a good deal of useful work among the slugs may be done when it is dark. Some Carnation seedlings protected by having salt sprinkled around them are quite untouched, while some unprotected have been badly eaten. H. P. A.

SOCIETIES.

ROYAL BOTANIC SOCIETY.

ON the 6th inst. the last of the monthly shows of the season was held. The exhibits were not numerous, so many provincial shows, as well as that of the National Rose Society, being in a great measure accountable for the falling off. This was rather unfortunate, for there was a better attendance than usual during the afternoon.

Messrs. Peed and Son of West Norwood had a fine group of *Caladium*, lightly arranged with *Ferns*. Among the best sorts were *Fastuosum*, large bright red; H. J. Chapman, soft pink, with bright veining; Mrs. J. Peed, red, with a crimson shade in the centre; *Silver Queen*, one of the best light varieties; Mme. E. Pynart, La Lorraine, and many others, also a few very pretty unnamed seedlings. Gold medal.

Messrs. Barr and Sons, King Street, Covent Garden, also obtained a gold medal for a large and interesting display of hardy flowers. Nymphs were a feature, and included some new varieties. *N. atropurpurea*, large flowers of a rich crimson-purple, and *N. gladiolifera*, a very large white variety, for which a certificate of merit was given, were specially worthy of note. *Delphiniums* were well shown also. M. Duviolier, purplish blue; Manteau d'Azur; Clara Stubbs, deep blue, and many others were good. Japanese and English Irises were well represented. Several good varieties of *Heuchera*, among them *micrantha* and *sanguinea* splendens, which is much brighter in colour than *S. grandiflora*. *Brodiaea murrayana*, with deep purple-blue flowers in umbels, reminds one of an *Agapanthus*. *Gypsophila Stevenii*, *Lilium giganteum*, *Eryngium*, a great variety of Sweet Peas, and other interesting subjects were included.

Mr. Sicklemore, gardener to Dr. Buxall, Abinger Common, Dorking, made a good display with Sweet Peas, having fifty varieties, including all the newest sorts, viz., Scarlet Gem, Dorothy Eckford, Countess Spencer, Jeannie Gordon, and Gracie Greenwood. Silver-gilt medal.

Lady Alice Dundas, Middleton Lodge, Richmond, Yorks, sent some fine blooms of Malmaison Carnation Princess of Wales and other varieties. Cultural commendation.

Mr. W. Bayler Hartland, Cork, sent *Galega Hartlandi variegata*. This has been said to be the same as *G. dubia*, but the foliage showed seemed distinct, and the long racemes of pale blue-manve flowers were very pretty.

Messrs. Laxton Brothers, Bedford, sent their new Strawberries Bedford Champion and Laxton's Reward. A certificate of merit was given to the last-named.

Mr. J. P. Harvey, Kidderminster, made a display of Cucumbers, Tomatoes, Strawberries, and Ferns, grown by Mr. A. Coombes by the aid of their fertilisers, and which were certainly good specimens of culture. Silver medal.

Mr. G. Kelf, gardener to Miss Adamson, South Villa, Regent's Park, showed good examples of Peach Dr. Hogg and several sorts of Melons. Of these Regent's Park,

scarlet flesh, well netted and of good flavour, was awarded a certificate of merit. The exhibit also included some good table plants. Silver medal.

The secretary of the National Bee-keepers' Association gave a practical demonstration of how bees can be transferred from one hive to another without destroying them and other interesting details connected with bee-keeping.

HANLEY HORTICULTURAL SHOW.

THIS was beyond question the finest floral exhibition which has ever been seen in North Staffordshire. The show committee has been exceedingly fortunate in enlisting the continued interest and support of not a few of the best nurserymen and growers of the country. The following is a list of the principal prize-winners:

PLANTS.

Group of plants, arranged for effect, not to exceed 300 square feet: First, Messrs. Cypher and Sons, Cheltenham; second, Messrs. Artindale and Son, Sheffield; third, Mr. William Vause, Leamington.

Group of Orchids in bloom, arranged for effect, not to exceed 100 square feet: First, the Duke of Sutherland, Trentham; second, Messrs. Cypher and Sons; third, Mr. John Robson, Altrincham.

Group of Malmaison and other Carnations in pots, arranged for effect: First, Mr. John Robson.

Six plants in flower, distinct varieties, but Orchids excluded: First, Messrs. Cypher and Sons; second, Mr. William Vause; third, Mr. T. Bolton, Oakmoor.

Six plants in flower, distinct, and six fine foliage plants, distinct: First, Messrs. Cypher and Sons; second, Mr. William Vause.

Eight exotic Orchids, distinct; First, Messrs. Cypher and Sons; second, Duke of Sutherland; third, Mr. John Robson.

ROSES.

Seventy-two Roses, distinct varieties: First, Messrs. R. Harkness and Co., Hitchin; second, the King's Acre Nurseries, Hereford; third, Messrs. Townsend and Sons, Worcester; fourth, Mr. H. Drew, Faringdon, Berks.

Forty-eight Roses, distinct varieties: First, Messrs. Townsend and Sons; second, Messrs. Perkins and Sons; third, the King's Acre Nurseries; fourth, Mr. W. H. Frettingham, Beeston.

Thirty-six distinct varieties, three blooms of each variety: First, Mr. W. H. Frettingham; second, Messrs. Harkness and Co.; third, the King's Acre Nurseries; fourth, Messrs. Townsend and Sons.

Twelve new Roses, distinct varieties, introduced in 1902, 1903, and 1904, with names: First, Messrs. Perkins and Sons.

Twenty-four Hybrid Teas, distinct varieties: First, Messrs. Harkness and Co.; second, Messrs. Perkins and Sons; third, Messrs. Townsend and Sons; fourth, Mr. Prince.

Twenty-four Tea or Noisette Roses: First, Mr. Prince; second, the King's Acre Nurseries; third, Messrs. Townsend and Sons, Worcester.

Twelve best white Roses, any one variety: First, Messrs. Townsend and Sons; second, the King's Acre Nurseries; third, Messrs. Perkins and Sons.

Twelve best yellow Roses, any one variety: First, Mr. Prince; second, Messrs. Perkins and Sons; third, the King's Acre Nurseries.

Twelve best pink Roses, any one variety: No first; second, Messrs. Perkins and Sons; third, Mr. Prince.

Twelve best red or crimson Roses, any one variety: First, the King's Acre Nurseries; second, Messrs. R. Harkness and Co.; third, Messrs. Townsend and Sons.

Eighteen bunches garden Roses, in not less than twelve varieties: First, Messrs. Townsend and Sons; second, Mr. Prince; third, Messrs. R. Harkness and Co.

Nine bunches, in not less than six varieties: First, Messrs. Townsend and Sons; second, Mr. J. H. White, Worcester; third, Mr. Prince.

CUT FLOWERS.

Best collection of hardy perennials, arranged on table space: First, Messrs. G. Gibson and Co., Bedale; second, Messrs. Harkness and Sons, Bedale; third, Mr. J. H. White, Worcester; fourth, Messrs. Hewitt and Co., Solihull, Birmingham.

Best arranged basket of flowers: First, Messrs. Perkins and Co., Coventry; second, Messrs. Artindale and Son, Sheffield; third, Mr. D. Ffolkes, Newcastle.

Stand of cut flowers for table decoration: First, Messrs. Jenkins and Sons, Newcastle; second, Mr. T. Boulton; third, Mr. W. Vause; fourth, Mr. D. Ffolkes, Newcastle.

Collection, twelve varieties Sweet Peas: First, Mr. T. Jones, Ruabon; second, Messrs. Hinton Bros., Warwick; third, Messrs. Jarman and Co., Chard; fourth, Mr. J. Bowler, Market Drayton.

Twelve varieties Eckford's Sweet Peas: First, Duke of Sutherland; second, Mr. T. Jones; third, Mr. John Madeley, Market Drayton.

Twelve distinct varieties of Sweet Peas grown from Sydenham's seed: First, Mr. J. Bowler, Market Drayton; second, the Dowager Lady Hindley; third, Mr. T. Jones, Ruabon; fourth, Mr. A. G. Holford, Eccleshall; fifth, Mr. J. H. Marsh, Newcastle.

FRUIT AND VEGETABLES.

Desert table decorated with flowers and foliage, plants in pots being allowed, but not Orchids; not more than fourteen dishes of fruit selected from the list given: First, the Earl of Harrington; second, the Duke of Westminster; third, the Earl of Carnarvon.

Dinner table decorated with flowers and foliage only, plants in pots allowed: First, Mr. W. Vause; second, Messrs. Jenkinson and Son, Newcastle; third, Mr. W. Marple, Penkridge.

Collection of twelve dishes of fruit, not less than eight kinds and not more than two varieties of a kind, to include black and white Grapes, each collection to be decorated with flowers and foliage: First, the Earl of Lonsborough; second, the Earl of Harrington; third, Lady Beaumont. The Earl of Harrington was awarded first prize for decoration; second, the Earl of Lonsborough; third, Lady Beaumont.

Collection of six dishes of fruit, distinct kinds, to include two bunches of black or white Grapes, or both: First, the Duke of Westminster; second, Lord Bagot; third, Mr. J. Drakes; extra third, the Earl of Carnarvon.

Four bunches of Grapes, two black and two white: First, the Earl of Harrington; second, Lord Bagot; third, Lady Beaumont.

Two bunches of Black Hamburgh Grapes: First, the Earl of Harrington; second, the Dowager Lady Hindley, Droitwich; third, the Duke of Westminster, Eaton Hall; fourth, the Marquis of Cholmondeley, Malpass.

Two bunches of black Grapes, any other variety: First, Lord Bagot; second, the Earl of Harrington, Elvaston Castle, Derby; third, Mr. Joseph Drakes.

Two bunches of White Muscat Grapes: First, the Earl of Lonsborough; second, Lord Bagot; third, Lady Beaumont, Carlton Towers, Yorks.

Two bunches of Grapes, any other variety, white: First, Lord Bsgot, Blythfield, Rugeley; second, Mr. Joseph Drakes, Market Rasen; third, the Earl of Lonsborough.

One dish of fifty Cherries: First, the Duke of Sutherland; second, the Earl of Harrington; third, the Earl of Lonsborough.

Dish of twenty-five Strawberries: First, the Earl of Lonsborough; second, Lady Beaumont; third, the Duke of Westminster.

Two Tomatoes: First, the Earl of Carnarvon; second, the Earl of Lonsborough; third, Lady Beaumont; fourth, Mr. J. Drakes.

Collection of vegetables, grown from Sutton's seeds: First, the Earl of Carnarvon; second, Mr. J. Drakes; third, Mrs. Swann, Oswestry.

Collection of vegetables, grown from Webb's seeds: First, the Earl of Carnarvon; second, Lady Beaumont; third, Mrs. Swann.

Collection of vegetables, grown from Hewitt's seeds: First, Lady Beaumont; second, the Earl of Carnarvon; third, Mrs. Swann; fourth, Mr. J. Drakes.

Certificates of merit were awarded to Messrs. Hewitt and Co., Solihull, for seedling Carnation J. F. L. Evans; and to Messrs. Hinton Brothers, Warwick, for seedling Pea Eric Hinton.

LIST OF MEDALS.

Mr. A. J. A. Bruce, Charlton-cum-Hardy, small gold medal for *Sarracenia*; Mr. Peed, London, large gold medal for *Gloxinia*; Mr. Sydenham, Birmingham, large silver medal for Sweet Peas; Messrs. Dobbie and Co., Rothesay, gold medal for Sweet Peas, *Violas*, and *Dahlias*; Messrs. Webb, Wordley, silver medal for Sweet Peas, &c.; Messrs. Artindale and Son, Sheffield, large silver medal for *Violas*, &c.; Mr. Hinton, Warwick, large gold medal for Sweet Peas; Mr. Bentley, Leicester, gold medal for *Roses*; Messrs. Blackmore and Langdon, Twerton, Bath, gold medal for *Begonias*; Messrs. Dickson, Limited, Chester, large silver medal for herbaceous flowers; and Mr. Child, Acock's Green, silver medal for herbaceous flowers.

WINDSOR AND ETON ROSE SHOW.

BY gracious permission of His Majesty the King this society held its thirteenth annual exhibition in perfect weather in the Royal Grounds at Windsor on Saturday, the 9th inst. Competition in most of the classes was fairly strong, and the general excellence of most of the exhibits was very noticeable. There was a good fight for the Challenge Cup (forty-eight single trusses), the place of honour falling to Messrs. R. Harkness and Co., whose blooms were perfect. Mildred Grant in this stand was adjudged the best bloom in the show. Papa Lambert, Bessie Brown, Lady M. Beauclerc, Mme. Cusin, White Maman Cochet, Her Majesty, Horace Vermet, and Mrs. E. Mawley were a few of the best. Mesars. Benjamin R. Cant and Son, Colchester, were a good second; Messrs. D. Prior and Son third; and Messrs. A. Dickson and Sons fourth.

For eighteen Teas or Noisettes Mr. George Prince was placed first with a lovely stand, which included splendid blooms of Maman Cochet, Mrs. E. Mawley, Bridesmaid, Ernest Metz, Catherine Mermet, and Mme. de Watteville; second, Messrs. D. Prior and Sons; third, Messrs. B. R. Cant and Sons.

For twelve distinct blooms, three trusses of each, Messrs. Harkness and Co., Hitchin, were a good first with an even lot of blooms, of which Marchioness of Londonderry, Bessie Brown, Her Majesty, and Lady M. Beauclerc were the best; second, Messrs. Frank Cant and Co.; third, Messrs. B. R. Cant and Sons.

For twelve single trusses of any H.P. or H.T. Messrs. Frank Cant and Co. were first with a perfect lot of Mildred Grant; second, Mr. George Prince, with Bessie Brown; third, Messrs. B. R. Cant and Sons, with Fran Karl Druschki.

For twelve single blooms of Tea or Noisette Messrs. B. R. Cant and Sons were first with a lovely stand of White Maman Cochet; Mr. George Prince was a good second with the same variety, and Messrs. D. Prior and Son third with Maman Cochet.

For eighteen bunches of garden Roses Messrs. Frank Cant and Co. were first with an attractive stand, which included *Gardenia*, *Killarney*, *Marquis of Salisbury*, *Antoine Rivoire*, *Fabvier*, and *Helene*; second, Mr. George Prince; third, Mr. Charles Turner.

Six distinct varieties, five blooms of each: First, Messrs. A. Dickson and Son, with a lovely lot, among which were Mildred Grant, Bessie Brown, Fran Karl Druschki, and Alice Lindsell; second, Mr. Charles Turner; third, Messrs. Frank Cant and Co.

The amateur classes were well filled. For thirty-six distinct single trusses E. B. Lindsell, Esq., was a splendid first, Bessie Brown, Mrs. S. Crawford, Alice Lindsell, White Maman Cochet, Mildred Grant, Mrs. W. J. Grant, and Her Majesty were some of the best in this stand; second, the Rev. J. H. Pemberton; third, H. V. Machin, Esq.

For six single trusses the Rev. J. H. Pemberton was first with Fran Karl Druschki; second, Mrs. Haywood; third, E. B. Lindsell, Esq.

For twelve Teas or Noisettes E. B. Lindsell, Esq., was first with good Maman Cochet, Mrs. E. Mawley, and Catherine

Mermet; second, R. Foley Hobbs, Esq.; third, G. A. Hammond, Esq.

Six Roses, distinct, three trusses each: R. Foley Hobbs, first; the Rev. J. H. Pemberton second; and E. B. Lindsell, Esq., third.

For twelve bunches of garden Roses the Rev. J. H. Pemberton was first with a lovely lot, which included Crimson Rambler, Rosa moschata nives, and macrantha; second, J. B. Fortescue, Esq., Dropmore (gardener, Mr. Face). For twenty-four distinct single trusses R. Foley Hobbs, Esq., was first with a well set up stand, in which Mildred Grant was splendid. Miss R. H. Langton was a good second.

For twelve distinct Roses G. A. Hammond, Esq. was first; second, J. Bateman; third, F. Wellesley, Esq.

In the local classes there was keen competition, especially in the class for the Windsor Cup. A. Govett, Esq., was the winner with a grand lot of blooms; second, J. B. Fortescue, Esq.; third, W. C. Romaine, Esq.

Twelve distinct single trusses: First, Raven Hollings, Esq.; second, the Rev. H. Hickman; third, Norman Lacy, Esq.

Six distinct single trusses: First, the Rev. J. B. Shackle; second, Mrs. Harvey Thomas; third, Mr. H.rench.

There was a tent full of decorated dinner tables. Miss L. Austin was first with an attractive arrangement of Poppies, Sweet Peas, and wild grasses; second, Mrs. Hill; third, Mrs. E. Gould.

For a group of plants A. Govett, Esq., was a good first with a well-arranged group of Bamboos, Francoas, Carnations, Kalosanthos, and Crotons; second, W. A. Stearns, Esq.; third, Mrs. Venables.

Nurserymen contributed largely to the success of the show. Messrs. George Jackman and Son, Woking, had hardy plants, Sweet Peas, and Roses; Messrs. Thomas Ware, Feltham, hardy plants and Sweet Peas; Mr. Eric F. Such, Maidenhead, hardy plants and Roses. Messrs. James Veitch, Chelsea, were awarded a first-class certificate for their new Strawberry Alake, which was shown in splendid condition. It has the appearance of being a robust grower and a heavy cropper, and its flavour is excellent. Messrs. Titt and Sons of Windsor had a floral arrangement of Malmisoun and Sweet Peas. Messrs. John Peed and Son, West Norwood, showed Gloxinias, Streptocarpus, and Begonias. The arrangements of the show were admirably carried out by Mr. Titt, the hon. secretary, who, together with the committee, is to be congratulated in bringing the show to a successful issue.

SOUTHAMPTON ROYAL HORTICULTURAL SOCIETY.

THE summer show of this society was held on the 6th and 7th inst., and in most classes secured a record entry. The show was arranged in a very large tent, and also in the commodious pavilion of the Royal Pier, which, by the way, is an ideal place for a Rose show. Notwithstanding the great heat of both days visitors on the evening of the second day found the blooms little the worse for their two days' exposure; in fact, many were sold at the close at 3d. and 4d. each. The centre of attraction was, of course,

THE ROSES,

comprising sixty boxes of blooms, and were generally considered the best that had been staged at a Southampton show for the last four years.

In the Nurseryman's division, Messrs. D. Prior and Sons, of Colchester, secured the first in the classes for thirty-six blooms distinct, twelve varieties, three blooms of each, and twelve Teas. Messrs. Jarman and Co., of Chard, and Rogers and Son, Limited (local), being second and third respectively. In the class for six dark of one variety, Mrs. Croft Murray, Ryde, was first, Prior and Son second, and Mr. F. W. Flight, Cornstiles, Winchester, third. There were three other entries. For six light, one variety, Mrs. Murray was again first, followed closely by Mr. Flight second, and Messrs. Jarman third. There were nine entries in this class. Messrs. R. Harkness and Co. entered in all the open classes, but did not show.

The flowers in the amateur classes were exceedingly good. Those shown by the prize winners would have done credit to their class in any show. For eighteen blooms, distinct, Mr. F. W. Flight was well to the front with blooms both fresh and perfect in form and colour. Mrs. Murray second, and Lady Campbell third.

For twelve blooms, distinct, and twelve Teas, Mr. Flight was again first in each; Mrs. Murray being also second in each, Lady Campbell being second in the first, and Dr. Seaton third in the other.

In the class for twelve blooms, not less than eight varieties, there were nine entries, Dr. Gillett, of Andover, being first, Mr. W. H. Myers, M.P., Swanmore Park, Bishops Waltham (gardener, Mr. Ellwood), second, and Mr. H. E. Sugden third.

For six blooms there were also nine entries, Mr. J. W. Fleming, Chilworth Manor, being first. The vases of Roses were very attractive, Mr. Fleming being a good first, and Sir Samuel Montagu second.

Messrs. Prior and Sons secured the society's silver medal as the most successful exhibitor in the open classes, and also a silver medal for the premier bloom in that division with Frau Karl Druschki; the silver medal for the premier bloom in the amateur division going to Lady Campbell, with a larger bloom of the same variety.

SWEET PEAS

made a grand show, no less than 200 vases being staged in the competitive classes, and almost as many more in the trade exhibits. For the society's prizes for nine varieties, distinct, Mr. C. W. Breamore staged a splendid lot. Messrs. Jarman and Co. and A. Maple being second and third respectively.

For Messrs. Toogood and Sons' prizes, six varieties Sweet Peas, Mr. J. M. Sheppard was first, Lord Aberdare second, and Mr. F. Cozens third.

For Mr. Robert Sydenham's prizes Mrs. Maltby was first, Mr. F. Cozens second, the Rev. du Boulay third, and Mr. W. F. Limery fourth.

For Mr. Breamore's prizes ten competed, the first being secured by Mr. A. P. Ralli with a grand lot. There were four other prizes awarded.

Bouquets, epergnes, buttonholes, baskets, and vases, in which the ladies came out strong, were all exceedingly well arranged and showing great taste, the most successful being Miss Wills for bouquets, Miss Minnie Snelgrove epergne and basket, Mrs. Croft Murray buttonholes, and Mr. T. Munday vase.

Hardy garden flowers were shown in quantity and of splendid quality, Messrs. Latham's first prize lot in the open class being grand. Mr. Myers also staged a beautiful lot in the amateur class, securing first prize.

THE PLANT CLASSES.

although placed first in order in the schedule, had, with the exception of the ornamental groups, to take quite a second place in merit. Specimen plants we have seen shown much better at Southampton. The groups, however, were certainly a great improvement on last year, that shown by Mr. E. Wills being all that could be desired, light in arrangement, with plenty of relief, without being in any way formal. Ferns and Caladiums were better than usual, Mr. G. Y. Mercer of Hillfield, Bassett, being first for Ferns, and Mr. A. P. Ralli for Caladiums.

FRUIT

was not up to the usual in point of numbers, but that shown was good. For the only two bunches of Grapes shown Lord Aberdare (gardener, Mr. C. H. Holloway) was awarded first. Strawberries were good and plentiful. For two dishes, Mrs. Maltby (gardener, Mr. J. Mathews) was first, and for a single dish Lord Aberdare first. For Peaches Lord Bolton (gardener, Mr. J. Bowerman) was first; and for one Melon, Mr. C. Ritchings, Guernsey, first.

VEGETABLES

were, as usual at Southampton, simply grand. The liberal prizes offered by Messrs. Toogood and Sons and by Messrs. Sutton and Sons drew a very large entry, and good as the first and second undoubtedly were, there were several other collections which, had they been staged in the same manner, would have been very little behind.

Messrs. Toogood offered ten prizes in their class, for which there were twelve entries, Lord Aldenham (gardener, Mr. E. Beckett) being an easy first; Lord Bolton (gardener, Mr. Bowerman) second, both showing good Cauliflowers, Onions, Carrots, Potatoes, Tomatoes, and Peas; third, Mr. W. H. Myers, M.P.; fourth, Mrs. Tragett; fifth, Mr. J. W. Fleming; sixth, Lord Aberdare.

The first three exhibitors in the above class were also placed in the same order of merit for Messrs. Sutton and Sons' prizes open to all customers.

In the local class offered by the same firm, Mrs. Tragett, Abridge Danes, Romsey (gardener, Mr. H. Pearce), was first; Mr. J. W. Fleming (gardener, Mr. W. Mitchell), second; and Sir S. Montagu, Bart. (gardener, Mr. T. Hall), third.

The prizes offered by Mr. H. Glasspool for cottagers' vegetables brought together six collections, all of remarkable merit. Amongst the many extra

EXHIBITS NOT FOR COMPETITION.

the first claiming notice was a grand collection of herbaceous flowers, Sweet Peas, Pinks, Roses, alpine and other plants, from Messrs. B. Ladhams and Co., Shirley. It occupied one end of the spacious building, and the society's gold medal was awarded.

Messrs. Toogood and Sons also received the same honour for over one hundred varieties of Sweet Peas, shown in bunches and growing in pots.

A silver-gilt medal, with certificate of cultural merit, was awarded to Mr. C. W. Breamore, of Winchester, for a beautiful collection of Sweet Peas; and to Messrs. B. R. Davis and Sons, Yeovil, for Begonia flowers which were of great beauty.

Silver medals and cultural certificates were awarded to Messrs. Edwin Hillier and Sons, Winchester, who included in their exhibits some fine Roses, both of the show and garden varieties.

Mr. E. Wills, Winchester Road Nurseries, Shirley, for miscellaneous collection of plants and some very beautiful floral designs.

Mr. Ellwood received a silver medal for thirty-six varieties of garden Roses.

Messrs. Jarman and Co., Chard, also secured the same honour for a fine collection of cut blooms of Roses, Sweet Peas, herbaceous and other flowers.

First class certificates were awarded to Mr. Dymott, florist, Bitterne Park, for a very fine seedling Petunia; to Mr. Breamore for the following very distinct new Sweet Peas: Douglas Breamore, Reggie Breamore, and Cyril Breamore.

Cultural certificates of merit to Messrs. John Peed and Sons for cut blooms of Begonias and Gloxinias; and to Messrs. W. H. Rogers and Son for decorative group of plants.

The whole of the staging arrangements were carried out by the veteran secretary, Mr. C. S. Fudge, and the catalogue with the awards was on sale in the show soon after it was opened. There was a record attendance on the first day, and in the later part of the second day the show was very much crowded.

NORFOLK AND NORWICH ROSE SHOW.

THIS was held in the gardens of Mr. A. R. Chamberlain, The Grove, Ipswich Road, Norwich, on the 7th inst. Fortunately the weather was favourable, but owing to many other outside attractions in the district the attendance and receipts were much below the average. The hon. secretary is Mr. W. Smith, Prince of Wales Road, Norwich.

In the large class for forty-eight distinct cut Roses, Messrs. F. Cant and Co. took first place, Messrs. Prior and Son a close second. This latter firm, however, took first in eighteen Teas, and also for twelve blooms.

The amateur and private growers' classes were well contested by all the leading local exhibitors of the "Queen of Flowers." The Rev. J. H. Pemberton was first for thirty-

six distinct and first for twenty-four blooms, eight varieties, three of each. In the thirty-six distinct, the Rev. Foster Melliar had unfortunately put up two blooms of Tom Hood, which disqualified him. The Rev. A. L. Fellowes, like several of the local clergy, is a strong exhibitor of Roses; his blooms were very fine, and his dozen blooms of one variety, Maman Cochet, shown with long stems and foliage, were charming.

Among the other prize winners in this section were Dr. Osburne, Miss Penrice, Colonel Danby, Colonel Rous, B. E. Fletcher, Esq., R. Steward, Esq., and T. C. Blofeld, Esq. The Rev. J. A. L. Fellowes secured the medal for the best Tea bloom with a White Maman Cochet, and the Rev. J. H. Pemberton that for the best H.P. with a Frau Karl Druschki.

Miscellaneous cut flowers added much to the interest of the show, especially so considering the interest gradually being taken to herbaceous borders. In this section the chief honour fell to Mr. George Davison, gardener to Major Petre, Westwick House, Norwich, who, with a bold and almost faultless bank of forty-eight distinct bunches, eclipsed any other exhibit set up. The Mayor of Norwich had some fine blooms in this section, and was also first for six bunches of exotic flowers. Mrs. Petre's gardener had a grand display in the thirty-six bunch herbaceous class, and was also first for the twelve bunches of flowering shrubs, just beating Mr. G. Davison in this latter class.

In the twenty-four and twelve bunch classes, the Rev. R. W. Pitt, Dr. Osburne, Messrs. A. Cator, W. J. Birkbeck, and T. Chaplin were the winners. Major Petre was first for Irises, and also for cut Pelargoniums. Mr. U. P. Wright, gardener to W. J. Birkbeck, Esq., Stratton Strawless, was first in a strongly-contested class for Sweet Peas. The old-fashioned Sweet William had one or two supporters, and Mr. W. Allan, Gunton Hall Gardens, had some fine Carnations shown as grown.

In this tent a striking feature was the display of cut herbaceous flowers, drawings of flowers in various parts, and photographs of the garden of the boys' school at Crook's Place, Norwich, where Mr. E. Peake is so untiring in imparting horticultural and botanical knowledge to the boys. Mr. H. Dobbie, Thorpe, had also arranged an educational exhibit by setting up about three dozen of our British wild flowers. The pot plant classes comprised some good specimens of Achimenes, Begonias, Coleus, Caladiums, Ferns, Fuchsias, and Pelargoniums.

Mr. Woodhouse, gardener to Dr. Osburne, was successful with Fuchsias, and Mr. W. Rush, gardener to F. P. Hinde, Esq., Thorpe, deserved praise for his exotic Ferns. Mr. C. Burtenshaw, gardener to Henry Skelton, Esq., St. Helens, Norwich, deserved mention for his pretty case of Ferns and the nicely arranged basket of plants. Mr. W. Allan, Gunton Hall Gardens, so well known for his fruit-growing capabilities, was the winner of many prizes in this section, Cherries, Melons, Grapes, and Strawberries being his specialties.

Mr. W. Chettleburgh, gardener to Colonel Rous, Worstead, was a large exhibitor in all classes of the show, and secured many prizes in this section as well as others. The feature of the vegetable section was the grand Peas, Beans, and Onions, Mr. W. J. Lawn, gardener to F. Martin, Esq., Wroxham, being amongst the foremost winners for these.

Messrs. Hobbess, Limited, Dereham, were well represented by a charming stand of Roses in many sections and varieties, including large bunches of the delicate Dorothy Perkins, Clematis, Sweet Peas, in banks beautifully blended, and the new Cactus-flowered zonal Pelargoniums. The stand was splendidly set up and much admired.

Messrs. Daniels Brothers, Limited, Town Close Nurseries, Norwich, also had a fine display of cut blooms and pot plants, the foliage plants of this latter section being especially fine, as were also some Caenias and Carnations.

Messrs. Cutbush and Sons, Highgate, N., set up one of their famous displays of Carnations.

READING GARDENERS' ASSOCIATION.

THE first evening meeting of the summer session was held, by kind permission of Mrs. Harrison, at Shiplake Court. Between seventy and eighty members, accompanied by the president, Mr. Leonard Sutton, left Caversham Lock by steamer, and on reaching Shiplake were met by Mr. J. Hall (the head gardener), Mr. W. Barnes (chairman of the association), and other members who had journeyed by road from Bear Wood, Wokingham, Maidenhead, Henley, &c. A move was at once made to the kitchen garden, the borders of which were gay with Irises, Canterbury Bells, Delphiniums, and other perennials. The vegetables looked remarkably well, especially Potatoes and Peas. In the houses the Grapes excited admiration, as the crop was a heavy one and the bunches and berries were of large size. The party then wended its way to the pleasure grounds and Rose garden. The latter at this time of the year is a feature here, and many varieties of Roses flourish well. At the close of the ramble the president, on behalf of the members, tendered to Mrs. Harrison a most hearty vote of thanks for allowing them to spend such a pleasant evening in her gardens, and spoke of the great educational facilities these visits gave, especially to the younger members. Mr. Barnes, in seconding the proposed vote, also spoke in a similar strain. The weather was very fine, and the evening outing was much enjoyed.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE quarterly meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday evening last, Mr. Charles H. Curtis in the chair. Three new members were elected, making a total of sixty-five this year up to the present time. The death certificate of Mr. W. J. H. G. Earl was produced, and the amount standing to his credit in the ledger was granted to his father, being his nominee. Five members were reported on the sick fund. The amount of sick pay for the past month was £20. The usual quarterly allowances from the benevolent fund were granted to three members.

THE HOLLAND PARK SHOW.

THE JULY EXHIBITION OF THE ROYAL HORTICULTURAL SOCIETY.

IT was a beautiful summer day when the show of the Royal Horticultural Society was opened on Tuesday last in the grounds of Holland House, kindly lent by the Earl of Ilchester. The private gardens could also be visited on payment of one shilling, the receipts this year going to the West London Hospital.

The exhibition was visited on the morning of the first day by Her Majesty the Queen, who was accompanied by H.R.H. Princess Victoria.

The Council of the society invited the members of the committees to luncheon on the first day. The chair was taken by Sir Trevor Lawrence, Bart., the president, who was supported by Sir Daniel Morris, Sir John D. T. Llewelyn, Bart., Mr. F. G. Lloyd, Mr. Harry Veitch, the Rev. W. Wilks, Mr. George Paul, Mr. George Bunyard, Mr. H. B. May, Mr. Arthur Wigan, Mr. William Marshall, and many other well-known horticulturists.

Sir Trevor Lawrence, in a brief speech, thanked the committees warmly for the work they were accomplishing for the society, and spoke of the deep interest taken in the Royal Horticultural Society by the King and Queen. Mr. George Paul and Mr. McIndoe responded. The show was excellent throughout.

ORCHIDS.

There were many beautiful Orchids in the group shown by Messrs. Sander and Sons, St. Albans. This display was informally arranged. Instead of a bank of plants of regular outline, small mounds at the front made an irregular margin. Altogether, the plants in this group were given plenty of room, and the result quite justified this arrangement. *Phalænopsis* were prominent, and specially fine was *P. grandiflora* Java variety, with large white flowers, with the faintest blush tinge at the centre; of *Lælio-Cattleyas*, L.-C. Eclipse (with orange-apricot sepals and petals and purple-brown lip), L.-C. D. S. Brown (rosy fawn sepals and petals and lovely rich purple flat lip), L.-C. Henry Greenwood var. *Imperator* (a large flower with rose-lilac sepals and petals, crimson-purple lip, and white throat, except for a central band of crimson) were the finest. *Cattleya* Mrs. Myra Peeters (*C. gaskelliana* alba × *C. Warneri* alba), *C. triumphans* (aurea × *Rex*, white sepals and petals, purple-white margined lip, and yellow throat lined with purple-brown), *Sophro-Cattleya Chamberlainii*, *Cattleya Whitei*, *Vanda cærulea*, *Cypripedium* Lord Derby, *C. Phoebe*, some lovely varieties of *Cattleya Mossiæ*, *Miltonia vexillaria* var. *Queen Alexandra*, *M. v. var. Chelsiensis*, and various *Oncidiums* were other notable plants in this most interesting group.

Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, showed a splendid lot of Orchids also. Although arranged in a mass, each plant was so disposed and given enough room as to allow of its being seen clearly. The refreshing greenery of

Adiantum between the plants added much to the effect of an attractively displayed group of good things. In the centre, *Oncidium macranthum*, with its curious large yellow bloom, was conspicuous, while here and there the lovely *Vanda cærulea* associated well with varieties of *Odontoglossum crispum*. *Lælio-Cattleyas* were represented by such as L.-C. *Eudora*, L.-C. *canhamiana*, L.-C. *Hippolyta* var. *Phoebe*, L.-C. *Ingrami*, L.-C. *callistoglossa*, and L.-C. *canhamiana* albens. *Miltonia vexillaria albiflorum*, *M. v. alba*, *Cattleya gaskelliana* alba, *Anguloa uniflora Turneri* (with fawn-pink flowers), *Mormodes luxata eburnea*, *Barkeria spectabile*, and *Arides l'Ansoni* were other Orchids of unusual attractiveness.

R. Briggs-Bury, Esq., Bank House, Accrington, exhibited *Cypripedium lawrenceanum* byeanum, Bank House variety, a very fine form, the petals rich dark green, and the white ground dorsal sepal heavily lined with the same shade of colour. *Odontoglossum crispum*, *Oakfield Sunrise*, with rich red petals and white sepals slightly spotted, a remarkable form, was also shown by the same exhibitor.

J. Colman, Esq., Gatton Park, Reigate, Surrey, exhibited a group of Orchids that contained many good things. Among the *Odontoglossums* whose arching racemes relieved any tendency to monotony of outline were *O. crispum Eleanor*, *O. c. bonnyanum*, *O. c. Mary Colman*, and other forms of *O. crispum* and *O. Pescatorei*. Among the *Oncidiums*, which added still further to the attractiveness of Mr. Colman's display, were *O. macranthum*, *O. prætextum*, and others. *C. Mossiæ* varieties, *C. schofieldiana*, *C. gigas*, *Lælia tenebrosa*, L.-C. *Martineti*, *Lycaste leucantha*, *Lælia elegans schilleriana*, *Cattleya Mossiæ reineckiana*, *C. Leopoldi*, *C. Forbesii*, *Miltonia vexillaria*, and *Lælia purpurata* were among others of the best Orchids.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, exhibited a small group of Orchids, among which were some good *Cattleya Harrisonii*, *C. H. alba*, *C. intermedia alba*, and *Lælio-Cattleya canhamiana alba*. Several *Oncidiums*, including *O. schleiperianum citrinum*, *Lycaste plana alba*, *Disa langleyensis*, *Dendrobium Dearii*, *Cattleya gigas*, and other good Orchids.

M. Jules Hye de Crom, Ghent, showed *Odontoglossum Rolfeæ* Ideal and *Miltonia vexillaria* Queen Alexandra, the latter a large white bloom tinged with faint red around the yellow central blotch.

M. Ch. Vuylstéke, Loochristi, Ghent, exhibited some finely-marked *Odontoglossums*, among which were *O. ardentissimum* Eclair, heavily blotched with light purple upon a white ground; *O. a. Cybele*, *O. Rolfeæ l'Aurora*, *O. R. Melpomene*, *O. concinnum*, and *O. harryano-crispum* Ixior, all beautifully marked hybrids.

M. Otto Beyrodt, Marienfelde, Berlin, exhibited *Odontoglossum Brandtæ* (luteo-purpureum × *Pescatorei*), with narrow yellow sepals and petals, the colour deeper at the edges; the lip is white and marked beneath the column with chocolate-red. Some very good plants of *Cattleya gigas* and *Odontoglossum schleiperianum*, Beyrodt's variety.

Sir F. Wigan, Bart., Clare Lawn, East Sheen (Orchid grower, Mr. W. H. Young), showed a small group of Orchids, in which *Cattleya gaskelliana*, *C. gigas*, *C. Allonis*, *C. Eldorada*, *C. Mendelii*, *C. M. Lowi*, *Zygopetalum roebingianum*, *Sobralia macrantha*, *Cypripedium Veitchii*, *C. Parishii*,

Phalænopsis speciosa, and other good Orchids were noticeable.

Messrs. Clibran, Altrincham, showed a small group of Orchids in which were *Cypripedium callosum* Sandera, *Miltonia vexillaria albens*, and some *Odontoglossums*. *Dendrobium atro-purpureum* was also well shown.

A botanical certificate was given to *Saccolabium longicalcaratum* and to *Dendrobium bellatulum*, a small flower with whitish sepals and petals and orange-red throat, this colour extending into the lip. Shown by Messrs. Sander and Sons.

NEW ORCHIDS.

Cattleya gigas Frau Melanie Beyrodt.—A very beautiful flower with pure white sepals and petals and rich purple-white margined lip. The throat is greenish white at the base and sides, the purple running into the throat at the top. The large size, rich lip and white sepals and petals make this flower very distinct. From M. Otto Beyrodt, Marienfelde, Berlin. First-class certificate.

Lælio-Cattleya Henry Greenwood var. Imperator.—A very large bold flower, with rose-tinted spreading sepals and petals and rich crimson-purple lip. On either side of a central line of the latter colour extending into the throat, the colour is creamy white. A very delicately and attractively coloured form. From Messrs. Sander and Sons, St. Albans. First-class certificate.

Cattleya triumphans.—*Cattleya aurea* and *C. rex* are the parents of this pretty hybrid *Cattleya*. The flower is a very dainty and attractive one; sepals and petals milk white, the frilled white margined lip is purple, while the throat is yellow, lined with brown. From Messrs. Sander and Sons, St. Albans. Award of merit.

Lælia crispa-brosa.—This is a hybrid, as its name denotes, between *Lælia crispa* and *L. tenebrosa*, and a good flower has resulted. The somewhat stiffly arranged sepals and petals are pink, while the lip, which has a pink ground colour, is beautifully lined and shaded with dark crimson. The throat is very closely lined with dark crimson. From Messrs. Sander and Sons, St. Albans. Award of merit.

Cattleya gigas Rosslyn variety.—A very pale form of *C. gigas*. Sepals and petals are bluish white, and the lip is mottled lilac-pink; on either side of the entrance to the throat is a blotch of yellow, the throat has a pink ground which is lined with white. From H. T. Pitt, Esq., Stamford Hill, N. (gardener, Mr. Thurgood).

EXHIBITS OUT OF DOORS.

Mr. David Russell (late John Russell), The Essex Nurseries, Brentwood, exhibited a very bright group of Acers and other ornamental foliage shrubs. *Acer Negundo variegatum* with purple Beeches were in the background, while *Acer palmatum* varieties, *Ivies*, *Euonymus*, *Hollies*, *Aralia Mandchuricus variegata*, and other plants were conspicuous throughout the group.

Messrs. Thomas Cripps and Sons, Tunbridge Wells, had a very fine display of Japanese Acers, many of them large plants and splendidly coloured. There were purples, yellows, greens, and variegated ones; while, together with specimen conifers, which were interspersed throughout, made an imposing and attractive exhibit. Some of the best were *A. palmatum sanguineum*, *A. japonicum aureum*, *A. j. laciniatum*, *A. j. versicolor*, *A. Negundo californica aurea*, *A. palmatum palmatifidum*, *A. p. linearilobum purpureum* Crippsii

(new), a beautiful variety, *A. p. septemlobum elegans purpureum*, *A. p. dissectum*, and *A. p. d. purpureum*. Other plants in the group were *Ivies*, *Oaks*, *Cupressus macrocarpa lutea*, *Retinospora obtusa Crippsi*, and *Vitis heterophylla variegata*.

Mr. John Forbes, Hawick, made a bright display out of doors with *Phloxes*, *Pentstemons*, and *Delphiniums* in many varieties. Among the latter *Magnificum*, *Crompton Roberts*, *Telegram*, *Juno*, *Mrs. Ireland*, and *Mrs. Langtry* were good dark blues, and *Petrarch*, *Rupert*, and *Cantab* the best light blues. There were many distinct colours among the *Phloxes* and *Pentstemons* and fine heads of flower.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited a group of *Campanula peregrina* and *Sciadopitys verticillata*, both very handsome plants.

Mr. J. R. Russell, Richmond, Surrey, exhibited a collection of fine *Ivies* in many varieties. Both standards and bushes were shown, making altogether a most pleasing display.

FRUIT.

Messrs. George Bunyard and Co., Maidstone, exhibited fruit trees in pots and a collection of *Strawberries* and *Cherries*. Among the former were *Cherries*: *Emperor Francis*, *Saint Margarets*, *Kirkland's Mammoth*, *Bigarreau Napoleon* (exceptionally well fruited), *Black Tartarian*, and *Bigarreau Donnisen*; *Apples*: *Emperor Alexander* and *Peasgood's Nonsuch*; and *Plums*, *Swan* and *Jefferson*. Among the dishes of *Cherries* the following varieties were finely represented: *Florence*, *Bigarreau Napoleon*, *Abesse d'Oignies*, *Bohemian Black*, *Bigarreau Donnisen*, *Kentish Bigarreau*, and *Bigarreau de Munster*. *Strawberries*: *Climax*, *Eleanor*, *Louis Gauthier*, *Sir Joseph Paxton*, *Dr. Hogg*, *Givon's Late Prolific*, and *Waterloo* were well shown also.

An excellent collection of fruits was shown by *Henry Partridge, Esq., J.P.*, Bletchingley, Surrey (gardener, *Mr. J. W. Barks*). *Strawberries*, *Royal Sovereign* and *Givon's Late Prolific*; *Peach*, *Violet Hative*; *Nectarine*, *Stanwick Elruge*; *Melon*, *Hero of Lockinge*; and *Grapes*, *Buckland Sweetwater* and *Black Hamburg* were the best dishes.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited two new *Strawberries*, *The Alake* and *President Leubet*. The former gained an award of merit recently, and was then described. The latter is a dark coloured fruit, the result of a cross between *Waterloo* and *Lord Napier*.

Strawberries Monarch, *President*, and *Latest of All*, and some *Globe Artichokes* were exhibited by the *Hon. A. H. T. Montmorency*, *The Grange*, *Carrick Mines*, *Dublin*.

From the *Horticultural College*, *Swanley*, *Apples Lady Sudeley* and *Beauty of Bath* (cultural commendation) and *Melon Swanley Hero* (cultural commendation) were shown.

Messrs. R. V. Whitmore and Co., Birchwood Park Nurseries, *Swanley*, exhibited some small seedling *Melons*.

J. B. Joel, Esq., *Petter's Bar* (gardener, *Mr. J. May*), showed *Strawberry Waterloo* in splendid condition.

The *Duke of Northumberland*, *Albury Park*, *Guildford* (gardener, *Mr. Leach*), showed *Strawberries Eleanor* and *Waterloo*, and *Black Currant fruiting sprays* free from the gall mite. *Mr. Leach* sent a note saying the bushes had been syringed with a strong insecticide, which he had found to check the insect but does not injure the bushes.

NEW FRUITS.

Strawberry Latest.—This is a new seedling *Strawberry*, the result of a cross between an unnamed seedling and *Latest of All*. It is a large fruit of irregular oblong form and dark red colour, and good, though not brisk, flavour. From Messrs. *Laxton Brothers*, *Bedford*. Award of merit.

Raspberry Penwill's Champion.—A new red variety of somewhat tart flavour; good size, said to bear fruit from early July to late September, and to be of vigorous growth. From *Mr. George Penwill*, nurseryman, *Totnes*. Award of merit.

ROSES.

The representative group of *Roses* that won the *Sherwood Cup* for Messrs. *Paul and Sons*, *The Old Nurseries*, *Cheehunt*, was a splendid display. The *Roses* felt the heat very much as the day advanced, but in the early hours of the show the display was very interesting, and lovely baskets were shown of *Mrs. W. J. Grant*, *Lady Battersea*, *Gustave Regis*, *Victor Hugo*, and *Killarney*. Of the single flowered sorts, *Leuchstern*, *Rosa Alba*, *The Garland*, and *Macrantha* were chaste and beautiful. Of the climbing *Roses*, *Crimson Rambler*, *Wallflower*, *White Pet*, *Rivers' Musk*, *The Tea Rambler*, and a charming assortment of the *wichursiana* *Roses*, each contributed to make a welcome feature in the large tent, filling one corner completely.

The silver cup (for being second in the *Sherwood Cup* class) was won by *Mr. George Mount*, *Canterbury*. Vases of *Mrs. W. J. Grant*, *Caroline Kuster*, *Caroline Testout*, *Fisher Holmes*, *Rubens*, *Anna Olivier*, *Frau Karl Druschki*, and a charming variety of climbing and other *Roses* made an attractive exhibit. This group also filled a corner in the large tent.

Messrs. *George Jackman and Son*, *Woking*, exhibited a charming display of garden *Roses* in bunches and also single blooms in boxes. Among the former were *Mrs. W. J. Grant*, *Keve d'Or*, *W. A. Richardson*, *Crimson Rambler*, *Dorothy Perkins*, *The Garland*, *Leonie Lamesch*, *L'Idéal*, *Reine Olga*, and others. Among the single blooms were many beautiful *Tea Roses*, as well as such other well-known ones as *Caroline Testout*, *Her Majesty*, *Alfred Colomb*, *Marie Baumann*, *Fisher Holmes*, and others.

Messrs. *T. S. Ware, Limited*, *Feltham*, *Middlesex*, showed some lovely blooms of *Frau Karl Druschki*, *Caroline Testout*, *Edith d'Ombrain*, *Souv. de Mme. Eugene Verdier*, *Bridesmaid*, and others, as well as bunches in vases of *W. A. Richardson*, *Dorothy Perkins*, *Crimson Rambler*, *Aimée Vibert*, *Eugenie Lamesch*, *Belle Siebrecht*, *Heléne Liberty*, and others.

Mr. George Mount, *Canterbury*, also exhibited many good blooms in boxes of *Marie van Houtte*, *Mrs. Edward Mawley*, *Maman Cochet*, *Bessie Brown*, *Killarney*, *White Maman Cochet*, *Frau Karl Druschki*, as well as vases of *Marquis de Salisbury*, *Laurette Messimy*, *Paul's Royal Scarlet*, *Killarney*, and many more.

Mr. David Russell, the *Essex Nurseries*, *Brentwood*, exhibited some splendid blooms of *Marchioness of Londonderry*, *Killarney*, *A. K. Williams*, *Clio*, *Ulster*, *Mildred Grant*, and others.

Mr. C. W. Piper, *Uckfield*, *Sussex*, showed *Tea Rose Sunrise*, as well as a new seedling climbing *Polyantha* called *Aceituna*, a deep pink. Another *Tea Rose* well shown was *Peace*, a creamy yellow colour.

Messrs. *Alexander Dickson and Sons*, *Newtownards*, *County Down*, *Ireland*, exhibited bunches of such garden *Roses* as *Irish Harmony*, *Irish Pride*, *Irish Elegance*, *Irish Masterpiece*, &c. Other beautiful sorts shown in vases were *Countess of Derby*, *Mrs. David McKee*, *Dean Hole*, *Lena*, *Viscountess Annesley*, *Dr. J. C. Hall*, *Lady Dunleath*, and other new ones. Awards of merit were won by several.

STOVE AND GREENHOUSE PLANTS.

The large tent, as usual, represented the choicer stove and greenhouse plants in remarkably good form and condition. Seldom have we seen these plants staged in a more interesting manner, and as a whole the display was of a very high order of merit. In the north-west corner of the tent *Mr. L. R. Russell*, *Richmond Nurseries*, *Richmond*, made a most attractive group of *Crotons*, *Alocasias*, *Dracenas*, *Palms*, and other choice plants. The better *Crotons* were *Golden Ring*, *C. Reidii*, *C. Aigburth Gem*, *C. Majesticus*, and *C. andreaum*. *Alocasia sanderiana*, *A. Martin Cahuzac*, and *A. mortefontainiensis* were conspicuous, as were also *Dracena russelliana* and *D. sanderiana*, *Phyllanthus niveus*, and other charming plants. Altogether this was a good group, and prettily arranged. An edging of *Caladium Argyrites* gave a neat finish.

A bold and handsome group came from Messrs. *R. and G. Cuthbert*, *The Nurseries*, *Southgate*, embracing a nice selection of flowering and foliage plants. In this group the different subjects were arranged in mounds for effect. In this way we saw masses of *Lilium longiflorum giganteum*, *L. tigrinum*, *L. lancifolium rubrum*, and the shapely *L. anatum*. A pretty lot of *Crassula coccinea* was a centre of attraction, as were also groups of *Crimson Rambler Rose*, *Ivy-leaved Pelargonium Beauty Supreme*, *Baden Powell*, *Mauve Beauty*, and *Mrs. Hawley*. The group was backed with well-grown plants of *Hydrangea paniculata* and *Palms*, and a groundwork of *Ferns* and *Asparagus* gave a pleasing finish.

From Messrs. *Sander and Sons*, *St. Albans*, came a group of choice stove and greenhouse plants, and quite a large quantity of the new, dainty *Cape Daisy* (*Anemone*-flowered), *Marguerite Queen Alexandra*, and different forms of the new *Nicotiana Sanderæ*. The former was arranged on the ground, and on the centre table of the tent their fine effect was supplemented with a beautiful group of choice *Ferns*, *Begonia Rex*, and other plants. In these two groups the more noteworthy plants were *Phœnix Rebelini alpina Sanderæ* (a very striking variegated foliage plant), a grand specimen plant of *Dracena sanderiana*, also a splendid plant of *Heliconia Edwardus Rex*, and *Dracena godseffiana*. On the table was a superb specimen of *Polypodium Knightiæ* and *Begonia Rex*. There were some delightful plants, including *Mrs. H. G. Moon*, *Our Queen*, and *His Majesty*. Interspersed as an edging were some pretty plants of *Asparagus Sprengeri variegatus*.

Messrs. *J. Hill and Son*, *Barrowfield Nurseries*, *Lower Edmonton*, set up one of the most representative group of *Ferns* that we have ever seen arranged. Delightfully pleasing were *Asplenium marginatum*, *Nephrolepis Piersonii*, *N. Fosteri*, *Gleichenia habelata*, *Pteris Childsii*, *P. Reginae cristata*, *P. Reginae*, *Gleichenia dicarpa longipinnata*, *Asplenium formosum*, *Pteris scaberula*, *Gymnogramma Alstoni*, and *G. peruviana argyrophylla*. *Adiantums* were finely displayed, including *A. Pacotti*, *A. luddemanianum*, *A. Collii*, and the pretty *A. Legrandii*.

Very fine were the foliage plants with flowers that came from Messrs. *James Veitch and Son*, *Chelsea*. Groups of *Carnations* were well arranged in the foreground, and in the centre was a choice display of the Japanese *Rhododendrons*, interspersed were grand specimens of the choicer stove and greenhouse foliage plants. Noteworthy plants were *Davallia Fijiensis robusta*, *Polypodium schneiderianum*, *Coccoloba pubescens* (*grandifolia*), *Caladium Louis A. van Houtte*, *C. The Mikado*, *C. Princess of Teck*, *Dieffenbachia Fournieri*, *Caryota Wallisii*, *Croton Warrenii*, *Nepenthes Burkei Excellens*, *N. amesiana*, and *N. mastersiana*. The *Carnations* were finely shown, the better kinds being *Ivanhoe*, *Lady Rose*, *Mme. Adeline Patti*, *Robert Burns*, and *Mercia*; of the *Malmaison* type and of the border varieties, *G. H. Crane*, *Royalty*, *Mrs. S. J. Brooks*, *Uriah Pike*, *Melba*, and *Sir Hector Macdonald* were the most noteworthy. An edging of *Ferns*, *Caladium Argyrites*, &c., gave a neat finish.

Mr. H. B. May, *Dyson's Lane Nurseries*, *Upper Edmonton*, made a large and attractive group of zonal *Pelargoniums*, and a basket of plants of the new *Polyantha Rose Mme. Lavavasseur*. The zonals deserving mention were *Captain Flayette*, *Mme. Derkener*, *Lady Ilchester*, *Gabrielle Moned*, *Lord Kitchener*, and *Fire Dragon* of the doubles; and of the singles, *Lord Ilchester*, *Mrs. H. B. May*, *Candace*, *Mary Hamilton*, and *Hall Caine* were conspicuous. The plants were in pots, arranged in baskets, and *Ferns* between the latter gave a charming finish. From the same firm came an immense group of *Ferns*. This occupied almost the whole length of one side of the centre table, and was of a most comprehensive character. The plants were pleasingly set out, and each one was in character. Notable examples were *Davallia Fijiensis Dillayii*, *D. ornata*, *D. rufa*, *Polypodium Mayii*, *P. Crasinervium*, *P. sneiderianum*, *Nephrolepis Piersonii*, *N. exaltata*, *N. pectinata*, *Pteris scaberula*, *P. tricolor*, and numerous others.

A grand bank of Caladiums from Messrs. John Peed and Son, West Norwood, was an attractive feature of this great show. Each specimen gave evidence of good culture, and all were beautifully fresh and prettily coloured. Specially good were C. E. Dahle, John Peed, Candidum, Hermione, Salvator Rosa, Mme. E. Pynart, Mme. Marchand, Rio de Janeiro, Mme. D'Hallo, Lord Rosebery, William Marshall, and Marquis of Camden. A pretty edging of Ferns, *Isolepis gracilis*, and *Calsidium Argyrites*, with a backing of stately Palms, finished a really handsome group.

Messrs. William Bull and Sons, Chelsea, made another of their beautiful group of the choicer fine-foliaged plants. This embraced Caladiums, Crotons, Palms, Ferns, *Paodanus*, *Dracenas*, &c., arranged in a graceful and artistic manner. A very conspicuous feature of this display was a number of freely-flowered growths of the new *Bougainvillea Maude Chettleburgh*. The flowers are very large, and the colour very rich and striking. Of the foliage plants, we may mention as being specially good were *Aralia elegantissima*, *Dracaena Victoria*, *Croton Flamingo*, C. Mme. de Boudnay, C. Reidii, and *Cyathea dealbata*, a most pleasing group.

From Mr. William Icton, Putney Park Nurseries, came a group of retarded Lilies and *Azalea mollis*, besides a number of pretty foliage plants. The Lily of the Valley was a specially good strain, and the immediate surroundings were rendered fragrant with the strong odour of the Lilies.

In another tent Messrs. James Veitch and Sons, Limited, set up on the side benches a pretty group of charming flowering plants. Groups of the interesting *Rehmannia angulata*, *Lobelia tenuis*, *Fuchsia Sylvia* (a grand acquisition), and *Kalanchoe flammea* were plants that impressed us. The new *Solanum Wendlandii* was a feature of interest. *Begonia Washington* is a brilliant crimson double flower that should be useful as a bedding plant. Of *Streptocarpus* there were several fine hybrids, for which this firm are noted. *S. achimeniflorus albus*, *S. a. roseus*, and *S. a. giganteus* formed a line the whole length of the group that was finished with an edging of Maidenhair Ferns.

From Messrs. John Laing and Sons, Forest Hill, S.E., came a group of Caladiums and tuberous-rooted Begonias. In the former were many good sorts, including candidum, Silver Cloud, Mrs. Joicey, Gerard Dow, Alexander III., and Duchess de Mortemart. An edging of *C. Argyrites* was used for the front of the group. The Begonias were well done, singles and doubles being equally well represented. Doubles: Lady Londonderry, cream; J. D. Lambert, salmon; Earl Roberts, scarlet; Mrs. Mulholland, yellow, and Sir Charles Tennant, salmon, were some of the best varieties; and of the singles, Lord Howe, Admiral of the Fleet, Lady White, Lady Edridge, Grand Duchess of Hesse, and Queen Alexandra were conspicuously good examples. There were some pretty crested flowers in this collection.

Mr. W. Wells, Leamington Spa, set up a small but very interesting group of the new *Asparagus Myriocladus*, with prettily interspersed plants of Crotons, Caladiums, *Eulalia japonica variegatus*, and *Dracenas*. This new *Asparagus* has much to commend it, and it was represented in typical form by this firm.

Tuberous-rooted Begonias from Messrs. Thomas S. Ware (1902), Limited, Feltham, were seen in magnificent form and condition on this occasion. In the centre of the group a mass of new double white Mary Pope was in evidence, and elsewhere the Primrose Mrs. W. G. Valentine was seen. The group was made up of double sorts exclusively, and those that most impressed us besides those already mentioned were Queen Alexandra (Picotee), Mrs. W. S. Ainslie, King Edward VII. (crimson), Dorothy Hawkins (blush salmon), Imbricata, Countess of Ilchester (primrose), Lord Rosebery (crimson), and Countess of Dartmouth.

Both single and double Begonias, as set up by Mr. A. L. Gwillim, Cambrian Nursery, New Eltham, Kent, made a gorgeous display. A grand rich canary yellow double, named Margaret Gwillim, was a specially good sort, showing distinct advance in this section. Other good doubles

were Eltham Glory (fine form of a Picotee flower), Sunset (scarlet-salmon), Venus (salmon flecked white), Cupid (pink), John Peed (frilled salmon), and Charles Kingsley (apricot).

A large group of Carnations was displayed by Messrs. George Boyes, Aylestone Nurseries, Leicester. These were plants in pots, and in many instances the latter were covered with Pterises, &c. The best of the border sorts were Lord Roberts (yellow), Lady Wright (white), Lady Battersea (flaked), Lady Henry Somerset, W. L. Murdoch, Hon. A. Lyttelton (pink), Lady Hart, A. J. Webbe (scarlet), and numerous bunches set up in vases attractively. In the latter set Lord Kitchener was a good dark sort.

Messrs. Blackmore and Langdon, Twerton Hill Nursery, were, as usual, to the front with tuberous-rooted Begonias. In this instance, too, the group was composed exclusively of the double-flowered sorts, and they were represented in charming variety. Good form characterises most of the newer introductions, and in the present instance this was beautifully exemplified. The better sorts were Mrs. A. Hall (salmon), Right Hon. J. Chamberlain (rich crimson), Marchioness of Bath (white), Mrs. Portman Dalton (apple blossom), Seagull (white), and Mrs. Heathcote (primrose) were examples of the highest order of merit.

A table of miscellaneous plants was displayed by Messrs. W. and J. Brown, Stamford and Peterborough. This embraced *Verbenas* Scarlet King and Miss Willmott; *Heliotrope*, Lord Roberts; *Cactus Geranium*, Fire Dragon, and the new sort The Countess, and a number of other interesting plants and cut Roses.

Cactaceous plants from Mr. Richard Anker, agent for Frantz de Laet, Addison Nursery, Kensington, W., were interesting. Large and small plants of well-known kinds were well represented. Two trays of the pretty little *Nestera depressa*, with its small orange-coloured berries, were objects of much interest.

One of the best plants in the show was staged in a group at one end of the big tent. This was *Spiraea compacta hort* × *Astilbe chinensis*. This was a beautiful pale rose form, and is a plant of the greatest promise. There was also a cross between *Spiraea* (Astilbe) Lemoinei and *Spiraea compacta hort*. The exhibit was put up by Messrs. Gt. Van Waveren and Kruijff Sassenheim, Haarlem, Holland.

Messrs. John Peed and Son, West Norwood, made a fine group of *Gloxinias*. The flowers were seen in endless variety of colour. Good selfs, as well as pleasingly marked and spotted forms, called forth the highest praise. Good quality throughout was noticeable, the more delicate tints of colour also appealing to the visitors. Interspersed were Ferns, *Asparagus*, and *Isolepis gracilis* giving a delightful finish to the group.

Carnations from Messrs. B. S. Williams and Sons, Upper Holloway, N., made an interesting group. Such varieties as Thora, Princess of Wales, Mrs. Trelawny, Mr. H. J. Jones, Prime Minister, Fireball, Sir Evelyn Wood, and Lord Rosebery were some of the best shown.

From Mr. H. J. Jones, Ryecroft Nursery, Lewisham, S.E., there came a very large and interesting group of plants and flowers. A very good strain of both double and single tuberous rooted Begonias for bedding purposes was represented by a large number of plants. These embraced charming forms and delightful tones of colour. An immense array of show and fancy Pelargoniums were superbly fine. Striking sorts, such as Eucharis, Princess, Albert Pratt, Rose Queen, Fredya Walker, Snowdon, Dorothy, Prince George, and the new regal, Her Majesty. Seventy-two bunches of zonal Pelargoniums were also displayed. We noticed Mr. T. E. Green, Oliver A. Vasey, Artemus, Esme, Grandee, Syrius Fashion, President McKinley, and Conan Doyle were glorious examples of these richly coloured flowers.

Two small round baskets of white West Brighton Gem zonal Pelargoniums were exhibited by Messrs. William Bull and Sons, Chelsea. This is a useful white flower with a West Brighton Gem habit, and should prove a distinct acquisition to the bedding varieties.

Verbena Warley was shown in a good group by Miss Willmott, Great Warley, Brentwood, Essex. This is a striking fiery crimson *Verbena*, that gives the promise of establishing itself as a standard sort.

New and choice Carnations from Mr. James Douglas, Edenside, Great Bookham, were represented in superb form. Of the Malmaison sorts Princess of Wales, Thora, Lady Jane Seymour, Cecilia, and Rizzio were conspicuous. Of the border sorts, Glowworm (award of merit), King Solomon (award of merit), Mrs. Keen, Lady Hermione, The Dawn, Lord Napier, Trojan, Beauty of Exmouth, Miss Shiffner, Kaffir, Molly Maguire, and Comet seemed to appeal to us more particularly, and were at all times objects of admiration.

Tuberous-rooted Begonias from Messrs. H. Cannell and Son, Swanley, were grouped very prettily. Good singles were Distinction (orange), Miss W. Nickalls (pink), Lord Bingham (deep-crimson), Seymour Lucas (deep rich crimson), Mrs. Bramwell (margined), Duke of Norfolk (buff), and Lady Mary Currie (salmon-buff). An edging of Maidenhair Fern and *Echeveria*, with its silvery white leaves, gave a pretty finish to the group.

Cactus Dahlias, from Messrs. Dobbie and Co., Rothesay, seemed altogether out of place, and frequent were the comments to that effect. These Dahlias seemed to bring the autumn too near us, and we would rather see them in their proper season.

Numerous bunches of double and single zonal Pelargoniums were arranged by Mr. Vincent Slade, Staplegrove Nurseries, Somerset. These flowers stood the weather well, the double sorts standing out very prominently. Mme. Laury, Pasteur, Mme. H. Tilmant, Cousin Bele, Fire Dragon, Reine Bazin, His Majesty the King, and Her Majesty the Queen were the best of the semi-double and double sorts. The white paper on which the vases stood enhanced the value of the flowers.

Messrs. B. S. Williams and Sons, Upper Holloway, N., grouped in one corner of the first tent twelve specimen plants of *Hydrangea*.

Carnations from Messrs. William Cutbush and Son, Highgate, N., were a specially good feature. Remarkably fine flowers were set up, embracing all the best of the newest sorts of the Malmaison type of the flower, and a goodly list of the smaller though equally interesting border varieties. Malmaisons included Mercia Thorn, Blush, Lady Rose, Princess of Wales, King Arthur, and the new Duchess of Westminster. Of the border sorts Voltaire, Benbow, Lady Hermione, Daughter of Heth, Leodogran, Chryseis, and Charles Martel were very fine. A long table of miscellaneous plants from the same firm was much admired, and included such subjects as *Verbena* Miss Willmott, V. Princess of Wales, V. Maiden's Blush, V. King of Scarlet, *Lantana* Barbet Yellow, *Erica* bothwelliana, and *Kalosanthus coccinea*. Rose Dorothy Perkins was pleasingly interspersed.

The new zonal Pelargonium Charles Lawrence was staged in fine condition. This is a very good semi-double, freely flowered, on plants having a good habit. The colour is a pleasing shade of salmon-pink. Exhibited by Messrs. G. and A. Clark, Limited, Dover.

Pigmy trees from Messrs. Barr and Sons, Covent Garden, still appeared to create an interest in the minds of many. The ages of these pigmy trees vary from 15 years to 200, and the specimens were in the pink of condition.

Hobbies, Limited, Dereham, exhibited the new *Cactus Geranium Cactus* Queen, also *Cactus King* and *Fire Dragon*.

Messrs. Clibrans, Altrincham and Manchester, put up a table of miscellaneous foliage plants. Crotons, *Dracenas*, and Palms, though small, were in charming variety. Tuberous-rooted Begonias, *Lobelia* Mrs. Clibran, and *Orchids* made an interesting display.

Hobbies, Limited, showed Carnations in a representative manner. Malmaison and border sorts were set up in endless variety, all the better kinds standing out charmingly from the older sorts.

Some of the Rambler Roses were exhibited as standards in this firm's display, and illustrated very forcibly the value of plants worked in this way for festoons, arbours, and similar uses. The plants were in varying heights, and can be had 12 feet high.

A group of Carnations from The Cedars Hardy Plant Nursery, Wells, Somerset, exhibited Princess of Wales and Cecilia in good form. The plants were well grown, and a groundwork of Maidenhair Fern gave the necessary finish.

For a floral decoration of three vases there was only one entry, and this gained but second prize. The exhibit was from Mr. Charles Russell, The Lodge, Pembroke Square, Kensington, W. The centre vase of Lilies was the best of the series. The second of Roses and the third of Iceland Poppies and blue Cornflowers were but poor efforts. The judges' comment on this exhibit was as follows: "The Poppy arrangement offends against all idea of colour harmony, nor have they lasting quality. The Roses very poor and too mixed. The Lilies good, but some flowers are mutilated by the anthers having been removed, and many flowers are broken; otherwise the arrangement is good and bold, but these points spoil it. Second prize given on account of excellent idea of Lily arrangement, though imperfectly carried out."

A huge bank of double tuberous-rooted Begonias was arranged by Messrs. B. R. Davis and Sons, Yeovil Nurseries, Yeovil. Good quality was noticeable in every instance, and this exhibit seemed to suggest that we have reached the apex of culture as regards these plants. Good sorts worthy of notice were Renown, Mrs. Moger, De Wet, Resolution, Ben Davis, Enchantress, Barfeur, W. Sparshot, Canopus, Miss Dorothy Hardwick, St. George, General French, and Lucania. A pretty edging of foliage plants completed the display.

SWEET PEAS.

A bank of well-grown Sweet Peas was charmingly displayed by Mr. C. Breadmore, Winchester. The flowers were large and well coloured. Specially good sorts were Miss Willmott, King Edward VII., Mrs. Walter Wright, Jessie Cuthbertson, Gracie Greenwood, Scarlet Gem, Janet Scott, Lord Rosebery, Triumph, Jeannie Gordon, Dorothy Eckford, Prince of Wales, Othello, Hon. Mrs. Kenyon, Salopian, and Prince Edward of York.

Messrs. John K. King and Sons, Coggeshall, Essex, set up numerous bunches of Sweet Peas in all the new and old forms of this indispensable summer flower. The bunches were small, but they were interesting to many.

Messrs. J. Cheal and Sons, Lowfield Nurseries, Crawley, Sussex, had a thoroughly representative lot of this fragrant annual set up in large bunches, and with flowers showing good culture. Coronet, Gorgeous, Coccinea, Countess of Radnor, Novelty, Chancellor, America, Duke of York, Fascination, Mrs. J. Chamberlain, Queen Victoria, Miss Willmott, Celestial, Black Knight, Blushing Beauty, Hon. F. Bouverie, and Lady Ormsby-Gore were among the more striking bunches.

One of the best lots of Sweet Peas was set up by Mr. H. J. Jones, Lewisham, S.E. They were a very fine lot, all the best sorts being represented. Countess Spencer, Dorothy Eckford, King Edward, Jessie Cuthbertson, Dorothy Tennant, Navy Blue, Mrs. W. P. Wright, Prima Donna, George Gordon, Miss Willmott, Hon. Mrs. Kenyon, were a few of the more striking sorts.

A new Sweet Pea was shown by Mr. William J. Unwin, Histon, Cambs. The variety is called Gladys Unwin, and is very similar to some of the prettier forms of Countess Spencer. A pleasing shade of pink is a good description of its colour.

A pretty exhibit of Sweet Peas was set up by Mr. David Russell, The Esher Nurseries, Brentwood. These were standard sorts, such as Lovely, Lady Mary Currie, Firefly, Royal Rose, Venus, Princess May, Lord Kenyon, Chancellor, Californica, Apple Blossom, Oriental, and quite a large number of the older sorts.

Sweet Peas and Carnations from Messrs. Thomas Ware (1902), Limited, Feltham, were good. The former were set up in bunches. Ferns, Asparagus, and Nepeta variegata were used in association and

gave a charming finish. Very good examples were Miss Willmott, Lady Grisel Hamilton, Mrs. Knight Smith, Lady M. Ormsby-Gore, Mrs. Fitzgerald, America, Lovely, King Edward VII., Agnes Johnston, Mrs. Dugdale, Creole, Scarlet Gem, Gracie Greenwood, and Triumph were some of the more striking sorts exhibited. Carnations, Dorothy, Frances Prior, Uriah Pike, Mrs. Nicholson, George Atwood, and Mrs. Audrey Campbell were charmingly displayed in vases with Carnation "Grass" as an adjunct.

Messrs. Dobbie and Co., Rothesay, also staged Sweet Peas. There was a goodly array, and included in it were all the newer varieties. We noted Mrs. Knight Smith, Mrs. H. K. Barnes, Agnes Johnston, Jeannie Gordon, Marchioness of Cholmondeley, Countess Spencer, Dorothy Eckford, Florence Molyneux, Lord Rosebery, King Edward VII., Jessie Cuthbertson, Mrs. W. P. Wright, Scarlet Gem, and Prima Donna. The flowers were lightly set out in the vases.

Messrs. Barr and Sons put up a pretty exhibit of Sweet Peas, staging popular sorts in neat and pretty bunches.

A fine exhibit was that arranged by Messrs. Jones and Sons, Shrewsbury. The Sweet Peas were elegantly set up, so that each spray of blossoms was seen to advantage. The flowers were large and handsome and the colours good. Among the newer kinds we noticed Countess Spencer, Scarlet Gem, King Edward VII., Jeannie Gordon, Hon. Mrs. Kenyon, Jessie Cuthbertson, Pink Friar, Chancellor, Mrs. Dugdale, Countess of Shrewsbury, Gorgeous, and quite a host of good things.

Hobbies, Limited, Dereham, made a brave show of Sweet Peas. The flowers were large and fresh and beautifully coloured. Elfrida (pink), Gladys Dean (heliotrope-blue), Countess Spencer, Golden Rose, sport from Agnes Johnston, Scarlet Gem, Dainty, King Edward VII., Dorothy Eckford, and Mrs. Knight Smith were among the better kinds.

HARDY FLOWERS.

The hardy plants, as usual, formed a leading and an attractive feature.

Messrs. Wallace and Co., Colchester, showed a magnificent group of the best and most seasonable flowers, disposed in an effective fashion. Lilies were a strong feature, and through the centre the colonies of *L. testacum* (a couple of dozen of spikes at least), *L. Henryi*, fully 10 feet high, and the Madonna Lilies were much admired. These colonies were supported by *Iris Monnieri*, nearly 7 feet high, very telling in light gold and with dark sword-shaped leaves. In the intervening spaces *Lilium speciosum* in variety, *L. Martagon dalmaticum*, *L. Brownii*, *L. longiflorum giganteum*, and many more were seen. Of equal importance were *Eremurus Bungei*, yellow, and *E. x Shelford*, a form with tawny yellow flowers and buds, and orange anthers. It is one of Professor Foster's raising, and is a seedling from *E. Bungei*. To name in detail all the good plants in Messrs. Wallace's group would occupy too much space. We are content, therefore, to select a few of them. These were *Brodiaea* and *Calochorti*, *Potentilla formosa*, *Gazania*, early *Gladioli*, a grand mass of *Campanula macrostyla*, with purplish violet blossoms, *Campanulae* of the *pumila* and *carpathica* sections, *Alstroemerias*, English *Irises*, *Orchis foliosa*, *Glancium flavum tricolor* (a very striking Poppy-like plant), and *Romneya Coulteri*, very effective in satin-white, with gold anthers, were among conspicuously good things. The two extremes were banks of Fortin's Lily of the Valley and *Iris laevigata* in variety.

Messrs. B. S. Williams and Son, Upper Holloway, London, N., contributed in the cut state early *Gladioli* and *Alstroemerias*, with *Lychnises*, *Campanulas*, *Ixias*, and the like.

[Other notes on this section must be held over until next week.]

FLORAL COMMITTEE AWARDS.

Alpinia Sanderi.—A very attractive species, with variegated leafage, having as near allies *A. vittata*, *A. nutans*, &c. The exhibited example was about 3 feet high and as much through; the variegation was very distinct. As a specimen for exhibition with stove plants this should prove one of the best. From Messrs. Sander and Sons, St. Albans. First-class certificate.

An award of merit went to each of the following: *Rose Charles J. Gralanne* (H.T.).—The flowers of this Rose are of medium size and rich crimson in colour.

Rose Countess Annesley (H.T.).—In this variety the flowers are of cupped form, and pale flesh-pink in colour.

Rose Duchess of Westminster.—In every respect a fine Rose. It is of pale La France colour, and is very distinct; the large, handsome, hairy flowers being effective in the extreme. This set came from Messrs. A. Dickson and Sons, Newtownards.

Rose Mrs. F. W. Flight.—Another fine addition to the pink rambler class. The colour is a warm pink, and the flowers are produced on enormous trusses; a showy Rose. From Mr. F. W. Flight, Winchester.

Begonia Canopus.—An enormous flower of citron yellow hue; the petals freely undulated, and the whole flower of a massive character. From Messrs. B. R. Davis and Sons, Yeovil.

Begonia Margaret Gwillim.—This is also a yellow-flowered variety, the tone rather that of pale canary yellow, the blossoms being about 5 inches across. From Mr. A. L. Gwillim, Eltham.

Glancium flavum tricolor.—A dark-coloured form of the Horn Poppy from Asia Minor. The cupped flowers are large, of orange and mahogany red, suffused with scarlet, a large ovate dark blotch occurring at the base of each segment. A highly attractive border plant. From Messrs. Wallace, Colchester.

Carnation King Solomon (fancy).—A finely shaped flower, having a buff ground, heavily flushed with scarlet and crimson.

Carnation Glow-worm (self).—A flower of magnificent size and proportions. The colour is scarlet, calyx perfect, and the petals of nearly uniform size to the centre. This pair came from Mr. James Douglas, Great Bookham, and each received the award of merit.

Carnation Lady Lindthgow.—From Mr. Martin R. Smith, Hayes, Kent.

OFFICIAL LIST OF AWARDS.

Gold medal.—Messrs. James Veitch and Sons, Chelsea, for above, greenhouse, hardy, and flowering plants; Messrs. Sander and Sons, St. Albans, for Orchids; Dorrien Smith, Esq., for *Foucroya longeva*; Messrs. T. Cripps and Sons, Tunbridge Wells, for Acers and hardy plants; Messrs. Dicksons, Newtownards, for Roses; Messrs. Blackmore and Langdon, for Begonias; and Messrs. Waverin, for Astilbes.

Sherwood Cup.—First, Messrs. Paul and Son, Cheshunt, for Roses; second, Mr. G. Mount, Canterbury, for Roses.

Silver cup.—Mr. H. B. May, Edmonton, for Ferns and flowering plants; Mr. L. R. Russell, Richmond, for trees, shrubs, &c.; Messrs. G. Bunyard and Co., for herbaceous flowers and fruits; Messrs. T. S. Ware, Limited, for alpines and herbaceous flowers; Messrs. W. Cuthbush and Sons, for Carnations, Irises, &c.; Messrs. J. Peed and Son, for *Gloxinias* and *Caladiums*; Messrs. R. Wallace and Co., for herbaceous and bulbous plants; Mr. Amos Perry, for herbaceous plants, &c.; Messrs. Charlesworth and Co., for Orchids; Mr. John Bradshaw, for hardy plants and flowers; Mr. H. J. Jones, for Sweet Peas, &c.; Messrs. J. Laing and Sons, for Begonias; Messrs. J. Hill and Son, for Ferns; Mr. J. Colman, for Orchids; Messrs. W. Bull and Son, for stove and greenhouse plants; Mr. M. Prichard, for alpines and herbaceous plants; Mr. Laurence Currie, for Water Lilies; Messrs. Barr and Sons, for hardy flowers and pigny trees; Mr. H. Partridge, for fruit; and Mr. C. W. Breadmore, for Sweet Peas.

Silver-gilt Flora medal.—Mr. D. Russell, for hardy trees; Messrs. B. R. Cant, for Roses; Messrs. Dobbles, for Pansies, &c.; M. C. Vuyksteke, for Orchids; Messrs. B. S. Williams, for *Gloxinias*; Messrs. Jackman, for Rosea and herbaceous plants; Sir F. Wigan, for Orchids; and Mr. G. Mount, for Roses.

Silver-gilt Banksian medal.—Mr. G. Reuthe, for alpines and herbaceous plants; Mr. R. Farrer, for alpines; Messrs. R. and G. Cuthbert, for flowering plants; and Messrs. B. R. Davis and Sons, for Begonias.

Silver Flora medal.—Mr. A. Gwillim, for Begonias; Messrs. H. Low and Co., for Orchids; Messrs. Cheal and Son, for herbaceous plants and shrubs; and Messrs. G. and A. Clark, Limited, for hardy flowers.

Silver Banksian medal.—Mr. J. Forbes, for hardy flowers; Messrs. Jones and Son, for Sweet Peas, &c.; Messrs. Fromow and Sons, for hardy trees; Mr. Ladhama, for herbaceous plants; Mr. V. Slade, for *Pelargoniums*; Mr. J. B. Joel, for Strawberries; Mr. R. Anker, for Cacti; and Messrs. Hobbies, Limited, for Sweet Peas, &c.

HORTICULTURAL SUNDRIES, IMPLEMENTS, &c.

Silver-gilt Flora medal.—Messrs. J. Bentley, Limited, Chemical Works, Hull; Messrs. Pulham and Son, Newman Street, Oxford Street, W.; Messrs. W. Wood and Son, Limited, Wood Green, N.; Messrs. G. W. Riley, Norwood Road, Herne Hill; and Messrs. Osman and Co., 132, Commercial Street, E.

Silver Flora medal.—Messrs. H. Castle and Sons, Limited, Baltic Wharf, Westminster; the Anglo-Continental Guano Works, Leadhall Street; the Four Oaks Nursery and Garden Sundries Company, Sutton Coldfield; Messrs. Champion and Co., 115, City Road, E.C.; Messrs. Dunilton and Co., Limited, Lambeth; Messrs. Fenlon and Son, Tudor Street, Whitefriars; Mr. James George, Redgrave Road, Putney; and Messrs. T. Syer and Co., 45, Wisson Street, Finchbury Street, E.C.

Silver Banksian medal.—Messrs. Valls and Co., 16, Coleman Street, E.C.; Messrs. Cory and Co., Shad, Thames, S.E.; M. de Luzy Irèze, 99, Lilford Road, Camberwell, S.E.; Messrs. D. Dowel and Son, Ravenscourt Avenue, Hammer-smith; Messrs. W. Herbert and Co., 2, Hop Exchange, S.E.; Mr. H. Pattison, Farm Avenue, Streatham, S.W.; and Mr. R. Pinches, Crown Buildings, Camberwell.

Bronze Banksian medal.—Messrs. William Poore and Co., 139, Cheapside, E.C.

* * * Report of the hardy flowers and sundries is unavoidably held over until next week.

THE GARDEN

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THINNING OF FRUIT.

FRUIT crops generally are not quite up to expectations. There are many cases in which trees, Apples in particular, are heavily laden, and a decision must be formed as to whether they shall be allowed to carry their burden to the end of the season or be relieved of a portion of it. There is no need to enlarge on the wisdom of judicious thinning, because it is only a matter of common-sense that a tree is much better able to bring to perfection a moderate quantity of fruit than a very heavy crop. It is true that trees are, generally speaking, vigorous this year, on account of the small strain on their fruiting energies last season, and consequently they are able to carry fairly heavy burdens without any undue tax on their energies; but, in spite of this fact, the spirit of moderation must be allowed to predominate in arriving at a decision as to the exact quantity of fruit any trees should be allowed to carry.

The object, particularly in private gardens, is to get good specimens, hence the necessity of timely thinning; and there need be no waste about it, as there is a demand in most households for Apples for cooking as soon as they are large enough. In some cases more than others is the necessity for thinning apparent. Varieties which have a tendency to make vigorous growth may be allowed to carry heavy crops, and it will do them good, by the effect it will have in checking exuberance; but all Apples are not of this character. A notable exception is Stirling Castle, a reputedly heavy bearer, but one which does not usually make strong growth. It is no uncommon thing to see stunted specimens which have been made so through over-cropping. Naturally, the varieties which need the most attention in the way of judicious thinning are those of long-keeping capacities, because, by relieving the trees of a part of their burden, the fruits which remain get more sustenance and are enabled to develop to larger and finer proportions.

It may be too much to expect a great deal in the way of fruit thinning on tall standard trees, because there is the question of labour to be considered, and usually there are a good many falls through wind and the ravages of the grub of the codlin moth; but in the case of dwarf, pyramid, and half standards, growing in gardens and plantations, the quality of the

produce eventually gathered may be improved by the timely thinning of fruits where they are thickly disposed on the branches. Everyone knows that if Gooseberry bushes are relieved of a part of their burden when the berries are green, the ripe fruit later on will be all the finer, and the same rule applies to Apples, Pears, and Plums. Speaking of the latter fruit, the well-known Victoria is a reputedly heavy cropper, but how often do growers fail to get fruits up to the true standard of the variety, simply because they allow the trees to carry too many. Indeed, there are men who will go to any amount of trouble in propping up heavily laden branches to prevent breaking, but they could never sum up sufficient courage to take off half the fruits, though this would be much the better course to follow.

Indeed, the rule of thinning is one that is closely associated with all branches of gardening, and the adoption of it is the secret of the finest flowers as well as fruit. A case recently came before our notice of a lady who thought the gardener spent an unreasonable amount of time in thinning Grapes, and she failed to realise the advantage of it. In order to convince her the gardener left a few bunches unthinned, which was about the wisest thing he could do under the circumstances, and the lady now is not only a strong advocate for Grape thinning, but everything else in the way of fruit. So many people have yet to realise the advantages of thinning hardy fruits that the operation is anything but general. The besetting sin of avarice may also have something to do with the neglect of thinning, but no great power of argument is needed to prove that it must be false economy to allow a tree to carry twice as much fruit as it is capable of bringing to perfection, while the quality would be considerably better if half the quantity were removed.

ROUND ABOUT A GARDEN.

DROUGHT AND DISASTER.

TO go round about a garden as a long drought approaches—let us hope—its end is rather a pilgrimage of woe. By unremitting watering of the flower beds proper and the lawns, brilliant colours contrasting with stretches of cool green may have been maintained in the main garden; but elsewhere the seamy side of summer shows too plainly. When it comes to watering the perennials to

keep them alive, gardening seems too artificial for a pleasure; and, since even the best intentions and appliances will hardly help you to water the shrubberies and shaded walks, your most strenuous endeavours to make up for the want of rain still fall far short of your garden's needs, and in flagging shrub and flaccid Fern you can measure the drought sinking deeper into the ground every day.

WEAK SPOTS REVEALED.

And it is curious how, at such a time, some deep-seated and unsuspected defect of your soil will come to the surface, just as latent hereditary disease will become manifest in a man worn down by trouble. Traversing the garden now, I see quite plainly why one of two Laburnums, planted to make an arch, never thrived as the other did; why, 20 yards from these, a couple of Larches have always been so unsatisfactorily thin on the top; and why one end of an adjacent shrubbery has always been its knuckle-end, where evergreens and flowering shrubs and perennials all failed to make anything like the growth of their fellows elsewhere. One may have noticed previously that these three weak spots were in a straight line with one another and have suspected a streak of thin soil; but it needed the drought to write the whole secret plainly on the surface of the ground.

A STREAK OF BARRENNESS.

For now—I write on the 19th, before a drop of the rain which seems at last to be approaching has fallen—these isolated spots stand in a broad line of barrenness, on which the grass is browner and the perennials more feeble than anywhere else. The broad line, moreover, takes in several spots where, one remembers, other crippled trees than the failing Laburnum and Larches once stood, trees that were removed so long ago—probably after the last year of drought—that one has almost forgotten how we mourned their premature decline. And if you go through the shrubbery to the outer railing you can see the same broad line still visible, even in the parched brown field, stretching like a yellow ribbon of desert to the point where it joins the drive several hundred yards away. The inhabitants of the village remember well when the drive was moved in order to accommodate the enlargement of the garden and the addition of new shrubberies; but so long as the house stands its occupants will be reminded of the change, which they never saw, by the infertile track that marks the line of the old road in dry seasons.

WHY INSECTS MULTIPLY.

But one may question whether prolonged hot weather brings to the surface in a garden anything more disastrous than the insects. It has long been a maxim that severe winters do not discourage insect life, the argument being that insects are naturally fitted to withstand such cold as can reach them in their hiding-places, whereas when the winter is mild and

the ground soft the birds can get at them. Our experiences of the last two years, when mild winters were followed by such a scarcity of insects as rejoiced the gardener but made the entomologist very sad, were accepted as evidence of the truth of this maxim. But what shall we say now? Last winter was milder than ever. With outdoor Plums and Pears in December, Strawberries in February, to say nothing of wild Primroses at Christmas, the winter of 1903-4 must have gone near to breaking many records of abnormal mildness; and there were very few days in the South of England when frost or snow prevented the birds from discovering hidden insects. Yet this summer has produced such a pestilent wealth of insects as happily has been rare in our recent records.

THE RESULT OF PROLONGED FINE WEATHER.

The truth, indeed, appears to be that the character of the winter has comparatively little to do with the abundance of insects in summer. The dominant factor for each species is the weather at the time of its emergence. Collectors are well aware of the futility of searching for insects abroad when the weather is inclement; and during a bad summer it frequently happens that you will hardly see a single specimen of butterflies which are usually abundant; whereas, given a week of suitable weather at the right season, you may take your butterfly net with confidence to the haunt of a rarity and will not be disappointed. Exceptions and vagaries occur, of course; but a single week of fine weather in a bad year will always suffice to bring out the insects of the season in such hosts that all the previous inclement months would seem to have had no effect upon them; whereas, if that week of good weather had not been vouchsafed, the collector might have gone to the end of the summer without enjoying a single good day for collecting. And between the insects which the entomologist longs to see and those which the gardener hates there cannot be any such marked line of distinction as to justify beliefs that their abundance or the contrary can be the result of an entirely different set of causes. In the lives of all insects the time of most serious risk is that in which they emerge from the chrysalis, and every female which is killed or otherwise prevented from laying eggs then represents hundreds of lives lost to the species. From this it follows that the week of fine weather which enables the collector to fill his killing bottle must also be the time when garden plants and crops are covered with eggs; and when, as this year, many successive weeks of fine weather occur, it is easy to understand how the cumulative insect-life becomes a burden hard to be borne. E. K. R.

THE USE OF THE HOE.

THE primary use of the hoe is for keeping down weeds, but, in addition, it is, properly used, the best cultivator we have. To keep the soil well moved is to give plants a chance to make good root-action, and this is most easily done by the use of the hoe, while the fine surface soil acts partly as a mulch, and also assists in supplying the roots with moisture during dry weather by capillary attraction. That the value of the hoe amongst growing crops is not sufficiently appreciated is a fact that can be seen any day in almost any part of the country, weeds being the most prominent feature of the crops. This is a great mistake, as nothing impoverishes the soil so much as allowing weeds to grow, while, in addition, they also make the ground much drier. It may be thought that the weeds keep the ground moist by acting as a screen against the sun, but anyone who has tested it

knows that at a depth of 2 inches or so the ground under weeds is much drier than an open piece which has been kept clean by the hoe. It is astonishing the amount and depth of moisture a crop of weeds will take from the ground. Where the hoe is used freely, the surface soil becomes broken up into fine particles, which lie close together, and act practically as a mulch. Though the soil may be dust-dry as far as the hoe penetrates, yet just below it will be found to be warm and moist, and will keep so even through a long spell of drought. It has been said that the best time for hoeing is when there are no weeds, and certainly a turn then makes a great difference in the time the weeds will come again, as a large number of seedlings that have just germinated and which can hardly be seen by the unaided eye are destroyed at this time.

The nature of the soil has much to do with the hoeing. On light sandy soils the hoe can be used at any time, as the ground is in perfect working order, even directly after a heavy rain, but on heavy clayey lands the case is different. One must get on the ground when possible, not when it is most desirable. The best time, however, for the first hoeing after the winter is as soon as possible after a rain, just when the ground is beginning to dry. By hoeing it then, while the ground is softened by the wet, the hoe can be, and should be, freely used to its full depth, and not as is the case if the soil has got dry and hard, be merely scratched over the top. This latter method destroys the weeds, but does not give that fine top-soil which is so useful to growing plants, and also so helpful in later hoeings in giving full play to the hoe. I have seen heavy soils that have not been caught at the proper time with a surface as hard as a road, and on which no impression can be made with any tool less than a steam plough, whereas if they had been hoed at the proper time the surface would have been broken up sufficiently to form that fine tilth so beneficial to the crops. By breaking the ground as deeply as the hoe can go, air is admitted to sweeten the soil, and warm rains get a chance to penetrate to the roots below instead of running off and turning paths into drains.

The proper time to hoe generally is when the weather is fine and dry, but if these conditions do not prevail, and the weather keeps showery, then judgment is required when to use the hoe. Here, on our light sandy peat, we can work the ground directly after a shower, and if the weather is unfavourable and likely to keep so we start hoeing at once. It is not so much that we hope to kill the older weeds, but, with the ordinary draw hoe properly and deeply used, numbers of tiny seedlings are turned over and smothered, and from our experience last year we have found that this is the best and cheapest plan, as there was no part of our ground that gave us any real trouble last year. In fact, we were freer from weeds last winter than we have been after many dry seasons, but continual hoeing, wet or fine, was necessary. On heavy lands, however, this would be impossible, as after a rainy time must be allowed for the ground to dry sufficiently to get on it, as it cannot be worked when it is sticky, but the hoe should be used whenever there is an opportunity. It is not so much the weeds that can be seen that are the greatest bother; but it is those tiny seedlings, barely discernible, that make a fairly clean piece of ground very foul in the course of a few days if let alone. When the sun is shining these seedlings cannot be seen, but on a dewy morning, before they become dry, they can be seen in thousands literally covering the ground, and then is the time to kill them.

The cost of keeping the ground clean is a large item in the majority of gardens and nurseries, and it is false economy to stint labour in hoeing, as the more the ground is hoed the better it is for the crops, and also cheaper in the long run. The actual cost varies with the character of the ground, but in light soils the average cost for a year should not exceed 12s. to 14s. per acre, while in heavy lands it will run about 15s. to 18s. per acre annually. This refers to the draw hoe, which is the best to use on a large scale, the Dutch hoe being of no use where acres of ground have to be dealt with.

Bagshot, Surrey.

J. CLARK.

WHOLESOME VEGETABLES.

IT may appear out of place to write on the above when midsummer has only just passed, but the gardener who takes an interest in the kitchen garden is obliged to prepare for future requirements. As regards actual culture I fear I have nothing new to describe, and my note more concerns the value of what may be called the earliest varieties and their usefulness early in spring. As regards seasons and quality we have made considerable progress, as now we have Cabbages that are reliable, there is greater freedom from bolting, and, being smaller, they are of better quality. A small, early, delicate Cabbage is one of our most valuable of spring vegetables. Even in a private garden where quantities are required there is no loss in growing a small Cabbage, as the plants occupy less space and they are more compact, so that a greater quantity can be grown. With large Cabbages there are loose, large, outer leaves, and these when removed greatly reduce the yield. Another strong indictment against a large Cabbage is that it requires a longer season's growth, and time is more important at the season named, owing to the lack of really good vegetables at command at the time named.

We make three sowings of seeds—a small early sowing is made, a larger one a little later, and a small one a month later still—but in a small garden or where Cabbages are not required after June the last sowing may be omitted. As regards the actual date of sowing, even here I should hesitate to give the exact time; so much depends upon soil, position, and locality. At Syon we sow as near to July 15 as possible for the earliest supply, and for this purpose sow a small, sturdy, short-legged variety, a cross between the excellent Ellam's Dwarf and Sutton's Little Gem. This season, though this variety was ready at the end of March and in quantity early in April, not 1 per cent. bolted. To get Cabbage at the date named the plants must be strong by the middle of September. This date may be a little late for the north, and therefore for the earliest supply our sowing was made on July 10. We usually planted out some six weeks later. It will be seen that a hard and fast line cannot be observed.

The most important sowing is made at the end of July. There is room for greater variety here, but a leading place may be claimed for the small sorts, and no one can go far wrong who relies upon Ellam's Early Dwarf, Sutton's April, or Flower of Spring, and though last, by no means least, that splendid little Cabbage Wheeler's Imperial. There are others. I only note those that have not failed us. This sowing is an important one. A good seed-bed and an open position are essential. Though Cabbages are valuable in March, a full supply with no interval well into May is essential in most gardens. The later sowing depends in a measure upon the grower's demands. Some of the main-crop varieties can be sown, as I find they are even better at this season than the early ones. This sowing is a small one. In some cases the plants are put out in their permanent quarters in February and wintered thickly in rows or left in the seed-bed. I prefer the first-named, but as this lot of plants cannot be called early spring I only note their value, as they give a succession. The seed is best sown in the autumn as advised. When the plants are grown thus they are earlier than seed sown early in the year under glass.

Earlier in my note I briefly touched upon the seed-bed, and much depends upon this and the condition of the soil, whether hot or dry. The seeds may germinate slowly and come up patchy. This should be avoided, and at the sowing it is well to have the soil sufficiently moist to promote quick germination. Also avoid overcrowding, which results in weakly plants. It is also well to sow on the level and away from trees, so that when moisture is given it is retained. It is much better to plant out the seedlings before they get too large, and, in case the quarters are not ready, prick out the seedlings in rows and lift carefully later on. These are only small matters, but as they have a great influence upon the plant they are worth observing, and by so doing bolting or running early in the spring is less prevalent. G. WYTHES.

SOME EFFECTS OF THE DROUGHT.

CLIMATICALLY the season of 1904 is in striking contrast to that of its predecessor, for whereas this time last year the general outcry was for fine weather, at the moment of writing the garden is thirsting for rain. The condition of things would doubtless be worse but for the fact that the rainfall last winter was heavy, and crops, particularly in retentive soils, are not suffering to the extent they would have done otherwise. On light, shallow soils, however, the want of moisture is being seriously felt, crops are ripening prematurely, and the returns in many instances must necessarily be light. Unfortunately, the tropical heat of the latter half of June and July followed a spell of cold drying winds, which appeared to be instrumental in bringing hordes of insect pests, which affected fruit and other trees to an alarming extent. Rain would have helped to wash them away, but it failed to come, and consequently the blight trouble of this year is amongst the worst on record.

It is in such seasons as the present that the benefits of an adequate water supply in the garden are appreciated to the fullest extent. At its best the artificial watering of outdoor crops is wearying work, and its benefits are slight compared to Nature's own way of supplying moisture, but it has to be done if crops are to be kept alive. How much a dry season adds to the labour of the garden no one but gardeners know, because time has to be spent on the operation which can ill be spared when other work is pressing, and yet it must be done, for no man who has the interests of his crops at heart can see them languishing for the want of water as long as he has any facilities at all for supplying it.

The season of production is necessarily shortened by spells of tropical heat and drought. Take Strawberries for instance. The early fruits were remarkably fine and the crops generally good, but the season of picking was shortened considerably by the rapidity with which the fruit ripened. The wisdom of relying on young vigorous plants, instead of on beds of several years standing, has asserted itself this year, for the latter quickly showed their inability to withstand the drought by the withered condition of both plants and fruit after a few days exposure to the sunshine.

The same remarks apply to bush fruits. The healthy young Gooseberry bush of a few years standing can retain its foliage and ripen its crop even though the weather be hot and dry, but the specimen which has passed the heyday of its vigour is quite unable to do so. Debility may be observed in the rusty brown appearance of the leaves, which fall an easy prey to red spider, the berries are quickly scalded by the sunshine or they ripen prematurely, and big gaps are made in the bushes through branches withering and dying away. The same thing occurs in the case of Currants. Our attention was recently drawn to a plantation of Black Currants, one-half of which was formed of old bushes and the other of young specimens planted about two years ago. The small and insignificant fruits on the former were withering and falling off wholesale, while those on the latter were full and plump and looked as if they would hang for a considerable time, though they were all growing under exactly the same conditions. These lessons plainly teach us that there should be no sentiment in our methods of fruit culture, and when a bush or

tree has served its purpose and is on the downward grade it should give place to a young and vigorous successor. We fight under difficulties in a season like this, what with the effects of drought on the one hand and a plethora of insects to deal with on the other; but it is useless to think of giving up in despair, because if caterpillars are left to defoliate the Gooseberry and Currant bushes the sunshine quickly finishes the work of destruction by scalding and withering up the fruits.

Though no vegetable grower wished for a repetition of last year's rainfall the opposite extreme is almost as bad, and the watering-can is playing no small part in the routine of the kitchen garden. No wonder that gardeners anxiously study the barometer and sigh for rain when there is Celery to be put out, and the greens in the seed-bed are spoiling for the want of planting. It is impossible to wait indefinitely for the needed shower, so the plants have to be transferred to their permanent quarters under sunny skies, and watering becomes part of the necessary routine. There are crops, too, which need thinning, such as Carrots, Beet, and Onions, but everyone knows what an almost impossible task this is when the top crust of soil is baked almost as hard as iron. Insects flourish under the conditions that are detrimental to growth, and that hard-backed little pest known as the "flea" plays havoc with the Turnips, seedling Greens, and other plants that are doing their best to grow under the trying conditions.

Green Peas form another crop which is causing considerable concern, for though the pickings have been plentiful up to now we have successional supplies to think about, and the rows from which we hope to gather Peas in August and September are sadly in need of rain. It is disheartening to see Pea haulm turn brown and sickly before pods are formed, and to prevent this resource must be had to watering and mulching. It is in such seasons as this that one realises the wisdom of preparing deep trenches for Peas and Beans, and placing a layer of cool manure in the bottom before sowing. Good drought-resisting Peas will serve their purpose this year, and amongst the many varieties for a dry season few are better than Autocrat, which keeps green and fresh-looking long after some other varieties have gone off entirely.

With regard to Potatoes we do not anticipate a repetition of the "blight" trouble of last year, unless climatic conditions alter considerably, but it is probable that crops will be small. Already the early varieties are ripening off, and even the tops of others which should grow for some time yet have a yellow tinge about them, which we would prefer not to see for some time to come. There is a particular interest in Potatoes this year, for many people who were bit by the craze for new varieties in the spring paid long prices for novelties, which they are naturally anxious should turn out well. If the season is not quite of the right character to test the disease-resisting capacities of Potato novelties we shall have an opportunity of observing how they acquit themselves in a dry summer.

In spite of many duties, however, caused by the necessity of much watering and other things, there is one operation which must not be neglected. It is surface cultivation, and though weeds are not growing fast, the Dutch hoe must not be allowed to hang rusting in the tool shed. It is doubtful whether the usefulness of this implement is fully appreciated, the object of using it during spells of dry weather is to conserve the moisture in the ground. When the sun bakes the surface

soil, cracks and fissures may be seen running in all directions, and it is through these channels that the moisture is absorbed. A free use of the hoe in keeping the soil in a broken crumbling condition on the surface naturally checks the absorption and the moisture, which instead of being drawn into the air remains in the ground for the benefit of the roots of crops. The necessity of watering in tropical seasons is evident to all, but we want to avoid the need of the operation as long as possible, and if the flat hoe were used more in stirring the surface soil between growing crops, they would not only benefit, but the use of the watering-can would be less essential.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 26.—Royal Horticultural Society, Committee Meetings in New Hall.

July 27.—Newcastle-upon-Tyne Summer Flower Show (three days); Cardiff Summer Show (two days).

July 28.—Chesterfield Show; Carnation Show at Birmingham (two days); St. Ives Flower Show.

August 1.—Lichfield, Grantham, Crediton, Atherston, and Ilkeston Horticultural Shows.

August 2.—Mansfield and Leicester Flower Shows (two days).

August 9.—Royal Horticultural Society's Meeting in New Hall, Vincent Square, Westminster.

August 10.—Royal Botanic Society's Annual Meeting; Ventnor, Sevenoaks, and Bishop's Stortford Flower Shows.

August 11.—Taunton Deane Horticultural Show.

August 13.—Sheffield Horticultural Show.

August 16.—Exmouth (two days) and Clay Cross Horticultural Shows.

August 17.—Shrewsbury Floral Fête (two days).

Marguerite Queen Alexandra.—

Those who had heard beforehand of Messrs. Sanders' new Marguerite had ample opportunity of seeing it at the exhibition held at Holland Park, for a quantity of plants in full flower were staged there. Accompanying these was a small circular, from which the following extract is made: "This South African Marguerite is a novelty of great beauty and usefulness. It is a pure white, very distinct form of the typical *Chrysanthemum frutescens*, with the addition of a crownlike or Anemone-flowered centre. This grand plant originated in South Africa, from where we have imported it." The plants shown were certainly very promising, though taller than some of the forms of Marguerite that we are accustomed to see. The flowers are from 2½ inches to 3 inches in diameter, with, in most instances, the centre filled with quilled florets after the manner of the Anemone flowered Chrysanthemum. A few, however, are only partially double, while occasionally a single bloom may be met with. By propagating, however, solely from the shoots bearing flowers strictly duplex in character it is more than probable that this tendency to revert to single blossoms will pass away in time. The long wiry stems of this variety will stand it in good stead for cutting, and the length of time that they remain fresh in water is also another point in its favour.

Raspberries in Blairgowrie district.—Although prices for Raspberries in the Blairgowrie district have been falling recently, it is hardly probable that the fall will continue, as the crop is turning out smaller than was at one time expected. In the Rattray district there will be a considerably smaller crop than was anticipated, much damage having been done from various causes. Among recent prices which have been given or offered was £26, only £23 being given soon after, while since that £27 was offered. The acreage shows a steady increase annually, and the increased crop seems largely absorbed by the growing demand for Raspberry jam for abroad, where the climate is unsuitable for the cultivation of this fruit.

National Potato Society.—The schedule of the National Potato Society's show, which is to be held at the Crystal Palace on October 11 and 12, has been issued. Many of the large seed firms give special prizes, and a particularly interesting class is that for the best exhibit of Potatoes in the show, the prize in which is the cup, value 10 guineas, presented by Sir John T. D. Llewelyn. Copies of the schedule may be had from the secretary, Mr. Walter P. Wright, Postling, Hythe.

In aid of the Gardeners' Royal Benevolent Institution.—It is interesting to know that Messrs. Cooling and Sons of Bath had a stall at the recent Bath Rose show in aid of the Gardeners' Royal Benevolent Institution. The exhibitors gave the committee the space and other blooms, and with the aid of one or two collecting boxes at the end of the day a sum of £15 1s. 3d. was realised. Many societies might do the same—[We think so too.—Ed.]—and in this way a very handsome amount would be available for the parent society at very little trouble or cost. Messrs. Cooling get the committee to give them a space in one of the tents, and a few willing helpers (ladies) do the rest.

Scottish Pansy and Viola Association.—The second monthly meeting was held at Buchanan Street, Glasgow, on the 13th inst., for the purpose of awarding certificates to such Pansies and Violas as might be deemed worthy. The following awards were made—Fancy Pansies:—First class certificate to Mary Philips (Kay), certificates of merit to Provost Thomson (Kay), Mrs. Campbell (Dobbie and Co.), Jeanie Carswell (Dobbie and Co.), Nellie Curson (Dobbie and Co.), Mrs. W. Sinclair (Dobbie and Co.), and Mary B. Wallace (Dobbie and Co.). Show Pansies: Mrs. R. Smith, white ground (Dobbie and Co.), Katie, yellow self (Dobbie and Co.), and A. Paterson, white self (Dobbie and Co.). Violas: Certificates of merit to Lady Grant (Frater), J. H. Watson (Kay), Effie (Dobbie and Co.), and R. MacKellar (Dobbie and Co.). Also certificate of merit to new Lobelia Blue Jacket (Aitchison Brothers). The next meeting will take place on August 10.

Strawberries in the Aberdeen district.—While the Strawberries here are considerably later than in the south, there is good prospect of the crop being in every way satisfactory, although the abundance of fruit everywhere will cause low prices to prevail. The extent of ground under Strawberries in this district increases yearly, and, upon the whole, the enterprise of the growers proves remunerative. The earliest to be marketed is usually John Ruskin, which is found an excellent cropper, but the main crop is still Sir Joseph Paxton. The bulk of the crop is disposed of locally, there being an extensive demand on the part of firms who preserve fruit for the large export and home business. The season here generally lasts until about the end of September.

The Queen at East End flower shows.—Her Majesty's visit to the heart of the East End last week excited the keenest interest. The Queen first inspected the display of plants and flowers at the People's Palace. The centre of the hall was occupied by the magnificent group sent from Frogmore by the King. Others who sent fine displays were the Duke of Eife, Lord Rothschild, Sir Samuel Montagu, M.P., Mr. Spencer Charrington, M.P., Mr. F. A. Bevan, and representatives of several firms. Escorted by the Duke of Eife, with the honorary secretary at hand to explain the exhibits, the Queen at once began her tour of inspection. Passing up the west side of the hall the Queen entered the winter garden, and here first saw the exhibits grown by the juvenile members of the society. Their honorary secretary, Miss Sator, explained the system pursued—how, for a penny, the youngsters buy a small but sturdy plant early in the season, to which a seal is affixed, the rest depending upon the skill and intelligence that the young gardener can display. In the great hall, again, the Queen was especially interested in the section restricted to the "congested district" which covers the densely-populated area from Victoria Park to Thames-side. From these squalid and unlovely streets no fewer than 200 exhibits

had been sent in. The Queen also visited the flower show at St. George's-in-the-East. It is the annual show, but, unfortunately, enthusiasm has been diminishing every year. St. George's is poor, and a bazaar was organised this year in the hope of stirring enthusiasm. The desired effect was obtained, for the entries exceeded those of last year by 100. The financial anxieties of the committee were dispersed when it became known that Her Majesty would visit the show and view the children's flowers. Practically all the flowers which graced the flower-stall came as a present from the Royal Gardeners.

Motor vehicles for the Clydesdale fruit districts.—With a view to provide better means of transport for the conveyance of fruit in districts of the Clyde valley rather remote from a railway, a service of motore has been begun, and the first run for the season was made on the 13th inst. Some of the most productive fruit districts on Clydeside have no direct railway connexion, and for a long time much inconvenience and expense have been caused by the necessity of driving the fruit all the way to Glasgow. The fruit farms about Crossford, Kirkfieldbank, Garrison, Rosebank, and Blackwood are among these, and large quantities of fruit have to be driven by horse-drawn vehicles, or taken by bad roads, in some cases, to the nearest stations. The Crossford route was the first on which the motor was begun, the run being made into Glasgow.

Aphelandra chamissoniana.—Many of the Aphelandras are remarkable, not only for the beauty of their flowers, but also for their handsome leafage, and in the species under notice there is no exception to this rule, as in or out of flower it is very attractive, though doubly so when the bright yellow blossoms are at their best. It is a native of Brazil, and though first distributed by the late Mr. William Bull of Chelsea, under the name of *A. punctata* as long ago as 1881, it is even now seldom met with. Like most other members of the genus, it is of erect growth, the sturdy stem being clothed with leaves about 6 inches long and with the course of the midrib and principal veins marked with a broad white band, breaking off at the edges into dots or freckles of that hue. The ground colour of the leaf being deep green, these light coloured markings stand out conspicuously. The inflorescence consists of a terminal spike with large bracts arranged in a cone-like manner, from the axils of which the flowers are produced. These bracts, which are deeply serrated at the edges, are of a deep chrome yellow, shaded with green towards the base, and when first developed they are also tipped with the same hue. The individual flowers are curved, tubular in shape, about 1½ inches long, of a rather lighter tint of yellow than the bracts, while before expansion they are tipped with green. Though very bright and pretty, they do not last long, but, as a set-off, the showy bracts retain their colour for a considerable time. Like the other members of the genus, this *Aphelandra* is not difficult to propagate, for cuttings of the half-ripened shoots strike in two or three weeks if dibbled into pots of light sandy soil and placed in a close propagating case in the stove. They will thrive in ordinary potting compost, but must be stopped to ensure a bushy habit, as it is only the stout sturdy stems that bear a good head of blossoms.—H. P.

Floral decorations by Wills and Segar.—I recently had an opportunity of seeing the floral decorations which were carried out by Messrs. Wills and Segar for a grand ball. It was one of the most important decorations the firm have done this season. Roses were the chief feature. In the entrance hall, the staircase, and landing Crimson Ramblers were twined round tall *Cocos flexuosa*, and archways were formed of them in the window recesses and other available positions. Large crimson Roses stood up among *Adiantum farleyense* and *Cocos weddelliana*. The ceiling was festooned with crimson Roses and Smilax, long trails of Smilax and Roses hung down forming curtains to the vestibule at the entrance to the ball-room. A few *Lilium longiflorum* and other flowers, with Ferns, were used at the base of each of the large Palms. In the ball room pink was the prevailing colour. Upwards

of 2,000 pink Roses were used, pink Malmaison Carnations, pink Gladioli, and pink Pelargoniums. In the large room, in three divisions, the whole of the ceiling was festooned with Smilax and pink Roses. Under the beams of the divisions hung large baskets of Roses, and in the angles were fixed large spreading bouquets. In front of the orchestra gallery were long Bamboo flower-holders filled with Roses and Gypsophila, and surmounted with a bank of Gladioli and Gypsophila. Round the overmantels were large light bouquets of Pelargoniums and spreading sprays of Asparagus Sprengeri. On the mantels were large bunches of Roses from which stood out long sprays of *Odontoglossum crispum* and beautiful blooms of *Cattleya* hung down. The panels of the walls were divided by plinths (corrugated), white with gold facings, the panels being crimson, and Roses hung down the plinths. In the fireplaces were banks of foliage, *Alcacia argentea variegata* and fine plants of *Croton Reidii* standing up among Ferns. The electric lights were covered with pink shades, and when lighted up the room seemed a veritable fairyland, and certainly did much credit to the firm.—A. HEMSLEY.

White Sweet Sultan The Bride.—This is a fine selection made by Messrs. Jarman and Co. of Chard, and exhibited by them at the Wolverhampton Floral Fête and awarded a certificate of merit by a committee of the whole of the judges. The purity of the white of the flowers is one of its chief recommendations. Its fine form is another, and, seeing how much the Sweet Sultans are employed in floral decorations, the white form especially, this new variety is likely to become highly popular.—R. D.

Chironia floribunda (ixifera).—Some fine examples of this soft-wooded greenhouse perennial shrub were exhibited by Mr. James Cypher, of Cheltenham, in his collections of stove and greenhouse plants at the recent Wolverhampton Floral Fête, and they created quite a sensation, especially among the gardeners, many of whom appeared to be seeing the plant for the first time. It is, indeed, many-flowered, the blossoms pink, and reminding one a good deal of a charming *Linum*. It is related to the *Gentians*; the few species are from Southern Africa. The form under notice was introduced in 1843. I used to see it exhibited at Trowbridge Flower Show in the early seventies, and I lost sight of it until two years ago, when I saw it at the York Flower Show in the form of small table plants in a collection of fruit and flowers. Mr. Cypher has done well to re-introduce it, and I should not be surprised if it became in brisk demand. The late Mr. John Matthews, who was in 1872 gardener at Highfield House, Trowbridge, and was the exhibitor of the *Chironia* at the local show, employed a simple treatment. He grew it in a mixture of turfy peat, with plenty of sand, giving it ample drainage and being careful not to overpot it, supplying it abundantly with water when growing, and keeping his plants in as light and airy a position as possible. The first plant which came into Mr. Matthews' possession was in a 6-inch pot, and in the autumn season he cut it back, grew it on all the winter in an intermediate house, and, as illustrating its free growth, by the end of May it had been potted on into a 12-inch pot, and it was then nearly 2 feet in height by as many in diameter. It was then removed to the greenhouse to become hardened off and to set its buds. It was shown at Trowbridge, and a few days after at Bath, where it created a sensation, being quite unknown there. I remember hearing Mr. Matthews say that he gave his plant stove treatment in the first instance to get it into size; but when he had made a good specimen of it he always cultivated it in a cold greenhouse, as stove treatment is apt to engender a weakly growth. In October the specimen was cut back close, then repotted in the spring, a large specimen being produced by the August following. It is to be hoped that other fine old plants successfully cultivated by our forefathers and since practically lost may be restored to cultivation, as they appeal as powerfully to the present generation as newly-introduced ones.—R. DEAN.

A new hybrid Orchid, raised by Messrs. F. Sander and Sons of St. Albans and Bruges, has been named after the Rev. David R. Williamson, minister of Kirkmaiden, Wigtonshire, Scotland. It is a very fascinating hybrid between *Lælia purpurata* and *Cattleya maxima* (from the latter of which it derives the exquisite veining of the lip), and has been called *Lælio-Cattleya Williamsoni*. It was recently exhibited in London at the Temple show.

The double Arabis.—I agree with "A.D." about the growth of this spring flower being much too robust to give flower freely when growing in rich soil. One plant I have here proves this quite clearly. I had occasion to lift it when about 1 foot in diameter to make room for something else. I laid it temporarily on the soil within an edging of stone, on the fringe of a low growing Spruce tree, and there it remains, the roots having never been covered, but have struck into the soil, and the plant has spread for the last two years and given huge crops of large spikes of the purest white blossoms.—E. M., *Swanmore Park*.

National Rose Society.—It may interest your Rose-loving readers to know that the receipts in gate money at the National Rose Society's recent exhibition in the Temple Gardens and from the sale of tickets exceeded those from the same sources last year by nearly £100, while one hundred new members, in a great measure owing to the show being held in such a central position in London, have during the last two months joined the society, bringing up the total number of members to over 1,100.—EDWARD MAWLEY, *Hon. Sec.*

Digitalis obscurus.—Referring to a note on *Digitalis obscurus* in your issue of the 9th inst., I may mention that this plant grows not uncommonly on the northern slopes of the hills above Granada in Spain. It is usually to be found in wet places, at the sources of those rather infrequent springs which in some instances appear to be only caused by leakage from artificial water-courses above them. Although not showy, the species is very distinct. The specimens growing in my garden here are grown from roots which I brought from Granada four years ago.—(Mrs.) M. GUYTHERNE-WILLIAMS, *Belvedere, St. Laurence, I. W.*

The yellow-berried Ivy.—It would be interesting to know if this Ivy is the same as that of which Pliny makes mention as growing in the Roman Campagna in his time, and which is still to be found there at the present day. In my garden a long wall facing south-east is covered with it, and in another part of the grounds it grows pretty well on a wall quite 12 feet in height and facing due north. Its handsome bunches of large orange-coloured berries are fully ripe by the end of January at latest, and, arranged with *Chrysanthemums*, make a beautiful table decoration. Strangers are always struck with this Ivy, and I have often sent rooted cuttings of it to friends in England, but do not know if it has proved so hardy a climber there as it is here in Tuscany.—TUSCAN.

Æschynanthus maculatus.—This tropical Gesneriad, though long known to cultivators, is now seldom met with, having probably been superseded by still more decorative stove species. It possesses, however, a distinct value of its own, inasmuch as it is amenable to quite cool house culture, a characteristic it holds in common with only one other of the genus, *Æ. Hildebrandtii*, a much more recent introduction from the alpine districts of Burma. A fine specimen of *Æ. maculatus* is exceedingly ornamental when each drooping spray is lighted up with its corona of brilliant vermilion flowers. The length of time during which the flowers last in perfection is remarkable, and a great point in favour of the plant. They are borne six to ten in a cluster, and are tubular, with lips which are outlined and pointed with purple-brown, whence the specific name. Propagation is very easy from cuttings in spring, when every pair of the thick fleshy leaves seems to be capable of forming roots. Quick growth should be encouraged, and the moist air under a bell-glass suits the cuttings well in their earlier stages. After rooting they should not be allowed to flower in a very small state, which they are generally too ready to do. Very pretty specimens may be grown on a block, in

the same manner as the Epiphytal Orchids, and they also look well in pans embedded in moss in hanging baskets. Those who prefer plants which may be expected to succeed in an unheated greenhouse would do well to make a note of this desirable *Æschynanthus*.—K. L. D.

Veronica anomala.—This pretty little New Zealand *Veronica* is now in full bloom, and is the very ideal of what a rock garden flowering shrub should be. It is barely 2 feet in height and of the same diameter, and every twig is covered with small, narrow-petalled, white flowers, which give the shrub a very charming appearance. The foliage is distinct, the leaves being small and abundant, and the habit is neat and sturdy. In July, 1891, it was thought worthy of an award of merit by the Royal Horticultural Society.—S. W. F.

Genista sagittalis.—This little plant has been very bright throughout the month of June. Planted immediately behind, over which its growths fall, and in the full sunshine it shows its beauty to the best advantage. The winged branches assume a perpendicular position, and every one bears a terminal flower-spike of bright yellow, and when the plant is furnished with several dozen of these, as in the specimen of which I write, its effect is extremely brilliant. The leaves are few in number, but even in the depth of winter the winged branches prevent the plant having a bare appearance. The other day in the South of Ireland I saw a large colony of this *Genista* planted on the steep and sunny bank of a tennis lawn, a very appropriate position for the display of its flowers. It is a native of Southern Europe, and has been introduced over 150 years.—S. W. F.

Cypella Herberti.—This little bulb from Buenos Ayres is now in flower with me. It has flowered annually for the last three years, since when I have had it in my present garden. In my notes from South Devon, July, 1897, I referred to it being in flower in my Torquay garden. When I left I gave my plants to a friend, and noticed them in his garden three years ago. He informed me that they had never flowered since he had had them, and suggested my taking them again and seeing what I could do. I therefore removed them to my present garden at the mouth of the Dart, where they have flowered every year. Last year I procured some more bulbs from a nurseryman. These are planted by the side of the others. The new bulbs have thrown up such tall flower-spikes—the tallest being over 3 feet in height—and such vigorous foliage that I made sure they were wrongly named, but on the flowers opening they proved to be true *Cypella Herberti*. The flower-spikes from the old bulbs never exceed 18 inches in height, but the pretty *Tigridia*-like bright orange-buff flowers of both are identical.—S. W. FITZHERBERT.

Swanley Horticultural College.—The prizes gained by the women students at the Horticultural College, Swanley, were presented by the Right Hon. the Earl of Ouslow, G.C.M.G., on the 11th inst. The weather was all that could be desired, and the large assembly included the Hon. Sir John Cockburn, his Excellency Sir Henry McCallum (Governor of Natal), Miss Wilkinson (Principal), the Lady Frances Balfour, Mr. Medd, Lord and Lady Brassey, the Earl and Countess of Stamford, Mrs. Hopkinson, the Countess of Westmorland, Miss Sieveking (hon. sec.), and General and Mrs. Wace. Miss K. Barrett was the winner of the silver salver, and the Misses J. Fotheringham and A. Yaszowska were at the head of the list for practical garden work.

Lonicera Hildebrandtii.—Several notes have appeared on this Honeysuckle in THE GARDEN from the late Rev. H. Ewbank and others, but we have never seen it so full of flowers as in a moderately warm house in the nursery of Messrs. Paul and Son of Cheshunt. The flowers hang in profusion from the leafy shoots, and their long deep yellow tubes have a pleasant fragrance. In the Isle of Wight and further south it is quite happy out of doors with the protection of a mat during winter. Mr. Ewbank grew it in this way, and we well remember his joy when the first flowers opened.

Gloxinias at Ellel, Regent's Park. There is a beautiful display of *Gloxinias* in this garden. The strain grown is Sutton's. What a magnificent white is Her Majesty! Perhaps it is the finest white yet raised. The plant is of compact habit, the large flowers are freely produced, and clear of the healthy and elegantly recurved foliage. The shades of crimson-scarlet, white margin, rich purples, and violet-purples on white ground are very beautiful. The first batch of this fine collection—tastefully interspersed with Maiden-hair Ferns—began to flower the first week in May. A little cultural note may be serviceable. The plants were in 4½-inch pots, and had been grown from seeds sown in March, 1903. They were a credit to the gardener, Mr. John Addison; and how greatly they would have been enjoyed by the late owner of this charming retreat, Miss Behrens.—QOO.

Phormium tenax.—In your issue of March 12 a note appeared from Mr. T. B. Field under this heading. From Mr. Field's remarks I am inclined to think that his plant is not *Phormium tenax*, but some other species, probably *P. Colensoi*. My reason for this is that he speaks of the leaves "arching over"—a term I should hardly apply to the growth of *P. tenax*. It is true that in a large plant of the latter the leaves often lean outwards, especially when it is grown in the open, but on the whole the habit is stiff. The Mountain Flax (*P. Colensoi*), on the other hand, is a much more graceful plant. Its leaves distinctly "arch over." It is not such a robust grower, is much harder than *P. tenax*, and is the species which, I think, would be by far the most suitable for cultivation in England. Its flower-stems do not rise above the leaves to the same extent as those of *P. tenax*, but grow much more horizontally. There are several variegated and brown forms of both species in cultivation. The fibre of *P. Colensoi* is comparatively worthless; it is only *P. tenax* which yields the fibre of commerce.—A. BATHGATE, *Dunedin, N.Z.*

Two new Strawberries.—At the last meeting of the Royal Horticultural Society the fruit committee had several new Strawberries before them, and two received awards. One, a most promising fruit, just failed to gain it, and as many of your readers did not see these new fruits a few words as to their quality and size may not be out of place. Mere size is no test as regards quality, and some may have thought these new varieties were too large, but there are several points worth considering. Exhibitors do not stage small or medium fruits when a new fruit is exhibited, and we do not condemn mere size if the quality is good. Strawberries often fail at the first trial if shown large, because there is an idea that coarseness must affect the quality, and this objection is natural, but I have found that it is not general, as when the plant is given ordinary culture there is less tendency to coarseness. The new introduction from Messrs. Veitch, Chelsea, raised at their Langley Nursery, named *The Alake*, is notable for its bright red colour and refreshing flavour. It is the result of crossing *Frogmore Late Pine* with *Veitch's Perfection*, and is said to be a heavy cropper, the fruit is irregular in shape, some being conical, others distinctly wedge-shaped, and the flavour is first-rate. It may be said that some of the *Pine* family are not reliable in all soils, and this is so. *Frogmore Late Pine*, though of excellent flavour, will not succeed in all gardens, so that it will be interesting to note if the crossing has resulted in greater vigour. The other seedling given an award came from the well-known Strawberry raisers who have in the past given us some splendid introductions, the Messrs. Laxton, Bedford, and this they have named *The Reward*. This fruit claims the well-known *British Queen* and *Royal Sovereign* as parents, though I am not quite sure if *British Queen* is the best possible parent, as some of our new Strawberries, which have of late years had a good deal of *British Queen* blood in them, though excellent in quality, failed to be vigorous and in a few years get weaker. This may be the reverse with *The Reward*. If so it is a great gain to get these fruits with the *Queen* flavour and the free growing, heavy fruiting qualities



[DIANTHUS CALLIZONUS ON THE ROCK GARDEN AT KEW.]

of Royal Sovereign. The fruits are larger, conical, also wedge-shaped here and there, and of a bright colour, very solid, and should travel well. They are very rich and juicy, and though large are produced in great quantities. Another even larger fruit was shown, the new Bedfordshire Champion, and this is very different to the others; it is a rounder fruit. This just failed to get an award; it is evidently an enormous cropper.—G. WYTHES.

TREES AND SHRUBS.

ÆSCULUS INDICA.

BETWEEN the flowers of this and the common Horse Chestnut there is very little apparent difference, but in other respects the two trees are not at all alike. Introduced in 1828, it was lost sight of until its reintroduction in 1844, and it is still a rare tree, specimens being rarely found in gardens. A figure of it is given in the *Botanical Magazine*, t. 5117, and in the description it is stated to have been first distributed by Dr. Wallich and named by him *Pavia indica*. It is found on mountains at an elevation of from 8,000 feet to 10,000 feet in the Western Himalaya, and is said to make, when mature, quite as handsome a tree as the common Horse Chestnut. At Kew a couple of trees are now, late June, in flower. The inflorescences are longer and narrower than those of the Horse Chestnut, but quite as handsome, the colour of the blossoms being very similar. The leaves differ greatly from those of the European species. They are composed of seven leaflets which have a very wide spread. The three central leaflets are very large, being a foot long and 4 inches wide. They differ from those of the better known species by being much smoother and by having deep red stalks and midribs. The margins are finely serrated and the whole leaf is quite glabrous. The *Botanical Magazine* figure was prepared from an inflorescence produced on a tree in the garden of Mr. C. J. Fox Bunbury, at Mildenhall, Suffolk, in 1858, the plant being then seven years of age and 16 feet high, with a stem 8 inches

in circumference. The seeds are larger than those of the common Chestnut, and take about the same time to germinate. It should be a useful species to cultivate, as it flowers after the other Chestnuts are over, and at a time when the majority of flowering trees are past their best.

CÆSALPINIA JAPONICA.

ALTHOUGH this shrub has flowered well for a number of years on a sunny bank in the Coombe Wood Nursery of Messrs. Veitch, it has never done really well out of doors at Kew until the present year, for while a few inflorescences are generally produced there has never been a good display. This year a specimen growing near the Ferneries is carrying upwards of thirty racemes. *C. japonica* is a Japanese plant, but is also found in various parts of Asia. Out of flower it has attractions, for the bipinnate leaves are large and handsome, the leaflets being small, light green, and dainty. The branches are long, and together with the leaf-stalks are intensely spiny. If left unpruned the branches twine and intertwine and quickly form an impenetrable mass. The flowers are yellow with red or reddish brown anthers, and are borne on axillary racemes from 6 inches to 12 inches in length. At Kew *C. japonica* proves tender in a young state, and the ends of branches on old plants are often cut back by frost in winter. For the majority of gardens a position on a south wall would be most suitable. In gardens in favoured localities a trellis in the open can be used.

STYRAX JAPONICUM.

THIS is one of the loveliest of summer flowering shrubs and also one of the most rare, being seldom met with except in a small state. When, however, a well grown and well flowered specimen is seen, it is difficult to imagine a more beautiful sight, the flowers are pure white with yellow anthers, and pendulous on long, thin stalks from the under sides of the branches. In the Coombe Wood Nursery of Messrs. James Veitch a large specimen was flowering recently, and at the present time a specimen 5 feet high at Kew is in full flower. The Coombe Wood specimen must be at least 12 feet

high, and is wide in comparison, and as it is growing on a bank the full beauty of its flowers can be seen. *S. japonicum* is found both in China and Japan; it grows naturally into a dense bush, with ovate, acuminate leaves, which vary in length from 1 inch to 4 inches. The flowers, as previously stated, are white, and borne, several together, from the leaf axils. *S. japonicum* seems to be a difficult plant to transplant, consequently it is advisable to give it a permanent position as soon as possible. A light soil composed of sandy loam and peat suits it, and it is advisable to prune away some of the lower branches to encourage growth, for when grown as a dense bush the flowers are hidden.

ESCALLONIA PHILIPPIANA.

MOST of the Escallonias are not suitable for growing in the open ground except in the more favoured parts of the country where severe frosts are not experienced, but where they will grow they are most ornamental. *E. philippiana* cannot, however, be classed with other species, as it is perfectly hardy, having withstood 30° of frost without injury, while for beauty it quite equals any of the others. It is found in Valdivia, and there forms a spreading, well-furnished bush 3 feet to 4½ feet high. The leaves are very small and dark green, and make a charming setting for the pretty star-shaped white blossoms, which are borne in profusion, singly or in short spikes, from terminal and lateral buds. It roots readily from cuttings, and in two years forms good plants for beds in the open or for groups in the shrubbery. Single specimens are also to be commended. Good loamy soil is most suitable for its successful cultivation, and an occasional surfacing of well-rotted manure is helpful. The flowering time is June and July.

W. DALLIMORE.

CORNUS KOUSA.

AMONG the more uncommon shrubs noted at the Drill Hall on the 28th ult. were some well-flowered specimens of this *Cornus*, which is, when at its best, a very striking object. It was long known as *Benthamia japonica*, but the genus *Benthamia* is now merged into that of *Cornus*, including the species on which the genus is founded, viz., *B. fragifera* (the Strawberry Tree), which is a native of the Himalayas, and now known as *Cornus capitata*. Where thoroughly hardy it forms a very handsome tree, but it can only be depended upon in the favoured parts of these islands, such as in the extreme west of England and in many districts of Ireland. The flowers, which are in a small, crowded cluster, are, as in many of its relatives, not at all ornamental, but each cluster is surrounded by four large, petal-like bracts of a creamy white, tinged with rose. The flowers are in turn succeeded by fruits, which when ripe bear a considerable resemblance to a Strawberry, hence its popular name. The Japanese *Cornus Kousa* differs from its Himalayan relative in being quite deciduous (whereas the other is more or less evergreen) in its lesser size, and in its floral bracts being white. In the United States the native-flowering Dogwood (*Cornus florida*) is very handsome and deservedly popular, but our summers and autums are, as a rule, not hot and dry enough to ensure a thorough ripening of the wood and a corresponding display of bloom. For this country, at least, *C. Kousa* is the better plant of the two, but, judging by the following extract from Professor Sargent's "Forest Flora of Japan," gardeners across the Atlantic entertain different views:—

"*Cornus Kousa* represents in Japan the *Cornus florida* of Eastern America and the *Cornus Nuttallii* of the Pacific States. From these trees it differs, however, in one particular, in our American flowering Dogwoods the fruits, which are gathered into close beads, are individually distinct, while

in the Japan tree and in an Indian species they are united into a fleshy Strawberry-shaped mass, technically called a syncarp. Owing to this peculiarity of the fruit botanists at one time considered these Asiatic trees generally distinct from the American flowering Dogwoods, and placed them in the genus *Benthamia*, which has since been united with *Cornus*. In Japan *Cornus Kousa* is apparently not common, certainly it is not such a feature of the vegetation in any part of the empire which we visited as *Cornus florida* is in our Middle and Southern States. Indeed, we only saw it in one place among the Hakone Mountains and on the road between Nikko and Lake Chuzenji, where it was a bushy, flat-topped tree, not more than 18 feet or 20 feet high, with wide spreading branches. The leaves are smaller and narrower than those of our eastern American flowering Dogwood; the involucre scales are acute and creamy white, and the heads of flowers are on longer and much more slender peduncles. *Cornus Kousa* also inhabits Central China. It was introduced into our gardens several years ago, and it now flowers every year in the neighbourhood of New York. As an ornamental plant it is certainly inferior in every way to our native flowering Dogwood, and in this country, at least, it will probably never be much grown except as a botanical curiosity." T.

THE FLOWER GARDEN.

GROWING THE ALPINE PINKS.

COMPARATIVELY easy to grow are the greater number of the wild Pinks, requiring only a little care and attention during the early stages of their existence. A

few of the rarer species, like the alpine and glacier Pinks, are more difficult to manage, and require special attention in order to grow them successfully and get them to form tufts of fair size and flower freely. Some of the smaller ones, again, suffer very much from damp in winter, and fine plants which have taken years to reach a respectable size are often lost in this way. Seed is the easiest method by which a stock of plants may be obtained, but, owing to the facility with which the various kinds hybridise, they are not to be relied on to come true, except in a few cases and where the plant to be increased in that way is isolated from all others. Cuttings taken just after the plants have done flowering root readily inserted in small pots in a mixture of loam and plenty of sand. The pots should be plunged in a shady frame and kept close for a time until the cuttings are rooted, when they may be potted off singly. Division of the plants in the spring may also be effected with many of the smaller tufted species. The larger kinds, such as *D. Carthusianorum*, *D. Caryophyllus*, *D. cruentus*, *D. giganteus*, and *D. liburnicus*, which are suitable for growing in the flower border, may be raised from seed sown in a little heat in spring. When large enough to handle the seedlings should be pricked out in boxes in a compost composed of half fibrous loam, one part sand, and one part leaf-mould. When well rooted they may be planted out in their permanent places ready for flowering the next spring. This early treatment is also suitable for *D. plumarius*, *D. cæsius*, *D. arenarius*, and others of a like nature, but lime rubbish

may with advantage be added to the soil in which they are grown. *D. alpinus*, *D. callizonus*, *D. glacialis*, *D. monspessulanus*, *D. sylvestris*, and others which inhabit the higher altitudes may also be raised in the same manner, but require more care afterwards. Instead of being pricked out in boxes they should be potted off singly in small pots. These should be plunged in a cool, shady frame for a time till they are of sufficient size for planting out. The compost should consist of loam and leaf-soil, with plenty of grit and lime rubble. This mixture suits nearly all the alpine species, with the exception of *D. glacialis*, which is a granite-loving plant, and to the soil in which it is potted and planted out granite chippings may with advantage be added instead of lime. When planting out in the rock garden a well-drained position with a sunny aspect should be chosen for nearly all the alpine species, though there are some exceptions, as *D. callizonus* and *D. sylvestris*, which two require a certain amount of shade, and should be planted where they receive the direct rays of the sun for a short period only. Established plants of the smaller alpine species require top-dressing once or twice during the season, with a mixture of sand and leaf-soil. This should be worked well amongst the young growths, care being taken that the growing points are not also covered up. The autumn dressing should contain more sand, so as to absorb the excessive moisture surrounding the plant in winter.

Kew.

W. IRVING.

MESEMBRYANTHEMUMS.

THE present season so far has favoured the well-doing of South African plants—at any rate, on our south-east coast. *Mesembryanthemums*, which made too luxuriant growth for their good during the wet summer of 1903, are doing much better this year. In the outdoor garden this fine genus is represented, as a general rule, by only two or three species. *M. uncinatum*, a curious but not very attractive

plant, with stiff, jointed stems and minute pink flowers, which do not often deign to appear, is to be found, being quite hardy, on many rockeries. Ice Plants (*M. crystallinum* and *M. glaciale*) are sometimes grown in the kitchen garden for the occasional garnishing of fruit. *M. cordifolium*, and especially its variegated form, is used as an edging plant, and now and then one meets with the pretty annual species, *M. tricolor*, in company with the more brilliant-hued *Portulacas*. Two reasons have contributed to the neglect of the *Mesembryanthemums*. Amongst the 300 or more species known to cultivation a vast number possess little decorative value and are mainly interesting to botanists, and a botanical plant, as we know, is a horror to most gardeners! But besides this, in common with so many plants of entirely diverse character, newly-raised stock produces the best results, whereas there is an undefined but fixed idea in the gardening mind that utter neglect is the one thing needful for most succulents; consequently one or two scraggy long-suffering specimens may be found lingering in many greenhouses, though the verdict is that nothing can be made of them. The truth is that whilst they can hardly be killed outright if they are grown at all, they can very easily be starved out of all beauty of shape or foliage or flower. The pity is that—except in the extreme south-west of England—they will seldom survive a winter unprotected out of doors, and this not so much on account of cold as damp. A dry, sunny wall facing south, with very sandy joints into which the roots can penetrate, is an ideal position for them, and I am in great hopes that some of the hardest species may pass through the next winter unscathed in just such a spot in a warm, sheltered garden, where the air is tintured by the salt sea-breezes. Everyone who lives by or near the sea should try *Mesembryanthemums*, for a sandy soil and a salt-laden atmosphere suits them to a nicety. For eight months of the year they should have as much air and sunshine as may be, requiring only to be housed during the extreme severity of winter.



ALPINE PINKS: DIANTHUS CÆSIUS ON THE LEFT HAND (TOP), THE OTHER IS D. PLUMARIUS.

Cuttings of each sort should be potted and grown on during the summer, to supply all blanks, with the same care that is given to bedding plants, and then their culture is of the simplest character.

M. spectabile is one of the finest for summer flowering, though several allied species not seldom do duty for it. It may be distinguished by its very glaucous leaves, the basal tufts of which send out strong drooping flowering branches. The deep rose-coloured flowers are produced in succession at the ends of the shoots, and are 3 inches across when fully expanded. The peculiar sheen which belongs to the petals of all *Mesembryanthemums* when open in the sunshine makes even a single flower a noticeable object from a distance. A very similar, though really distinct, species is *M. formosum*—the white-eyed red *Mesembryanthemum* of Haworth, the painstaking chronicler of the whole genus in the last century, whose labours have never been superseded. It is a fine plant, vigorous in leaf and flower, and can be recognised by the white or light pink basal ring of its large rosy flowers. The foliage is bright green, not glaucous, and it also differs from *M. spectabile* in its manner of growth. In another member of this group, *M. amœnum*, the main distinction seems to consist in the lighter and brighter shade, as well as in the texture, of the flowers, which are also somewhat smaller and have rose-coloured stamens of the same colour as the petals. All three are worth growing, in spite of a certain similarity, and make admirable pot plants, especially when hung against a wall for background, either in or, better still, out of doors.

One of the hardest species is *N. glaucum*, and it is at the same time one of the best. It blooms most freely when the plant is strong, and, in contrast to other kinds, when not too young. To form a good specimen it requires careful pinching back of the leader and afterwards of the side shoots, and sometimes assumes a drooping habit, when the ends of the branches recurve upwards. The foliage is glaucous, but differs entirely from those already mentioned. Haworth calls this the great gold-flowered *Mesembryanthemum*, but its large handsome flowers are bright sulphur-coloured rather than golden. *M. aureum*, which begins to flower as early as February—under glass in most localities—has glorious orange flowers, and is almost as hardy as *M. glaucum*; in fact, this species was the only one which survived last winter, planted on a south wall here, where even *M. glaucum* succumbed; but this was a weakly plant, and the wall in question retains too much moisture in a wet season for succulents. I hope, however, to establish colonies of both these early-flowering kinds on a dryer wall.

Of the freely flowered section (Haworth), *M. bicolor* is brilliant in the extreme, with its orange-scarlet flowers produced in masses. There are a good many of these slender-leaved, free-flowering species which are well worth cultivation, as the small size of their scarlet, or crimson, or mauve coloured flowers is amply atoned for by the dazzling effect of the crowded heads. White flowering kinds are numerous, of which *M. blandum* is one of the most valuable. It has prostrate stems, and in favourable positions opens its pure glistening flowers all the summer through. A sunny bank or narrow border under a house wall suits it to perfection, and, with its pink flowered variety also, succeeds admirably in window boxes, especially by the sea.

There are many more, some of which may be worthy of further notice. I have myself grown

as many as 150 distinct species for the sake of comparison and trial, and have a goodly number at present under observation. Looking round the garden this sunny July morning, and being charmed anew with the brilliant hues of those which are in flower, I am prompted once more to call attention to the rare beauty of this much neglected tribe of plants.

Guestling. K. L. D.
(To be continued.)

NOTES FROM SWANSWICK

FLOWERS FOR CUTTING.

AS I have planted a good deal of this garden with the cut flower idea in view, the interesting notes on flowers for cutting which have appeared lately came home to me, and some of the results may be mentioned. Of things grown from seed the Shasta Daisies seem likely to be exceedingly profitable from a cutting point of view. One packet produced about 500 plants, which were set out in rows in long narrow beds last September, and are now mostly in full bud, promising an immense crop of bloom for their size. They will, I suppose, stand at least three years in this holding soil, as a number of named varieties of *Pyrethrum uliginosum* have done with success. Single *Pyrethrum roseum* I find exceedingly useful so long as they last, which is, roughly speaking, for the month of June, and then again, if the dead flowers are all clipped off, for about a month later on, but in lesser number. Both they and the Shastas are splendid flowers for sending by post, and last an immense time in water. I find plants of *P. roseum* go on improving year after year, some four year olds being very fine in size, growth, and quantity of flower. We have great difficulty in getting them past the slug-ridden stage of first planting out, but after one season they are all right and give no trouble beyond being very sensitive to drought, and ready to go off flowering if they once approach any extreme dryness. *Galega officinalis*, both lilac and white, grown in the same way (from seed) as the Shasta Daisies, has done well, and will stand for years, and is one of the most useful cutting plants we have. Its delicate tint of colour, in the case of the lilac variety, tones in with nearly everything, and its stiff, yet light and branching habit of growth, makes it very useful in large vase work as supporting foliage.

I have a planting from one packet of the original Storries' improved Iceland Poppy which produced some twenty-five plants. Of these the majority are the ordinary yellow, one or two being semi-double. The rest are in two charming shades of primrose, one only deep red orange, a grand colour, and only striped on the reverse—buff and reddish pink. These will want a couple of years' working up, and in the meanwhile we find the ordinary Iceland Poppy, cut before it is quite full size, very useful, as also is what in the vases is practically indistinguishable from it, and a better laster, *Meconopsis cambrica*. The foliage of this latter is invaluable for cut flower work, where, as here, it grows, self sown, in numbers. The leafage of *Coronilla varia*—one of the most pestilent spreaders that ever choked a border—is also useful if it goes straight into water from the picking; but it is no good for sending by post. The lovely, delicate Maidenhair Fern-like greenery of the bright yellow-flowered *Corydalis* that grows on its own accord out of the foot of the house wall all round the stableyard, and finding itself appreciated is spreading on to a neighbouring rockery and over a wall into the kitchen garden, is also useful for home work on any small scale.

Gypsophila elegans, the annual, is invaluable during part of May and July and all June. It is quite as good as the perennial *Gypsophila* in appearance, gives any bouquet a lovely finish, and comes when nothing else of the kind is available, the sunset pink and feathery clouds of the exquisite London Pride blossom being over just as this *Gypsophila* begins, while the perennial *G. paniculata*, of course, comes on later. A planting or

"pave" of annual *Chrysanthemum Morning Star* has proved itself desirable. This is a first-rate plant in every way; the first flower comes up on a good long stiff stalk in the middle, and when cut the many side growths each produce good blossoms. It is very succulent, seems indifferent to drought, lasts splendidly both packed and in water, and is a handsome large flower of a very pleasing primrose colour. It groups well with anything like *Gypsophila*. Its one fault is that it is a stiff-stemmed flower, but for some purposes this is an advantage. *Coreopsis grandiflora*, in quantity from seed, and just coming into flower, I expect to find very useful, as also a last autumn planting of that loveliest of autumn pink flowers, *Anemone japonica Queen Charlotte*, which is a really good colour, without magenta, and a good stayer in all respects.

Of Pinks, which we have in considerable diversity, not one is so useful or half so charming, from a cutting point of view, as the refined, lovely, snow-white Carnation-like Albino, unfringed, and a good, though moderate, grower. The pink Clove would be useful for cutting if it were a better colour, and such pink Pinks as Paddington, though pretty in the hand, turn off to a dreadful hue after being a day in water. Delphiniums in the pale shades are very lovely and most useful, especially the Cambridge blue ones, and we have masses grown from Sutton's seed, which are a great success.

I grow the Bride *Gladiolus* in quantity, and it is lovely, but very fleeting. It stands the winter here and increases. *Ixia*, too, are, I think, well worth growing for cutting, as they last a long time indoors, longer in fact than if they are left on the bulb, where hot sun or any approach to dryness seems to scorch them up instantly, despite their South African origin. Here they die out quickly, diminishing by about half each year if not supplemented. *Heucheras* are useful flowers for the present style of exaggeratedly light table decoration, such as we see winning at provincial shows. Three stalks of Job's Tears grass and one Sweet-Pea spray was the allowance to each glass in one exhibit I now call to mind. The only other annuals we grow here for cutting are Love-in-a-mist and yellow Sweet Sultan, with *Lavatera*, pink and white. I do not think the idea is in any way original, but some readers may not know that a bit of Elder as greenery helps to keep other flowers fresh. I have a great opinion of Box and Rosemary as supporting green in big arrangements, and the latter is always sweet and fresh in rooms. M. S. W.

NOTES ON HARDY PLANTS.

CYPRIPEDIUM SPECTABILE IN THE SOUTH OF SCOTLAND.

HARDY Orchids are well grown in the garden of Colonel Maxwell Witham at Kirkconnell, Newabbey, N.B., and among the best is the charming Moccasin flower (*Cypripedium spectabile*). There are two large clumps in the borders which are well established, and which flower freely annually. The proportion of peat naturally present in the soil at Kirkconnell seems to suit this *Cypripedium* admirably, and no difficulty is experienced in cultivating it in the open border. The garden lies somewhat low, but is in a warm position, not far above the sea-level. One clump had in full bloom recently eight fine spikes, which showed the large white and pink blooms to advantage. S. A.

PHLOMIS TUBEROSA.

AMONG the many flowers in the garden of Captain Stewart, of Shambellie, Dumfries, is the old-fashioned, but striking, *Phlomis tuberosa*, known in British gardens since 1759, but scarcer now than many years ago. It is a good plant for the border or for naturalising, its stems, from 3 feet to 5 feet high, giving whorls of pretty purplish flowers, these looking even more orna-

mental when examined because of the white fringe on the margin of the upper lip. The flowers are rather hairy, with the exception of the lower lip, which is quite smooth. The leaves are ornamental, and the whole effect of the plant, like that of the greater number of the Jerusalem Sages, is rather striking. *P. tuberosa* likes a good soil, although it will thrive almost anywhere. It is perfectly hardy and flowers in June and July. S. A.

GIANT KALES (CRAMBE).

SEVERAL species of this Crucifer are flowering very freely at Kew. For a display of flowers at the present season they are certainly one of the finest large-leaved hardy herbaceous plants. It is equally at home in the herbaceous border, bold masses in beds on the lawn or by the side of a lake, but perhaps the ideal place for it is in the wild garden. When associated with *Arundos*, *Rheums*, and *Gunneras*, the effect is grand. *Crambe cordifolia*, a Caucasian species, *C. orientalis*, Asia Minor and Persia, and *C. pinnatifida*, also from the Caucasus, are the three most useful, except that *C. cordifolia* is two or three weeks later in flowering. The large leaves produced in spring are followed by tall branched stems, 5 feet or 6 feet in height, densely clothed with small snow-white flowers. Seen in the distance the bed illustrated is like a huge ball of snow. The plants may be propagated by seeds, or division of the roots in autumn, and they grow freely in any good garden soil; a top-dressing of sea-sand in autumn is very beneficial. Should they be growing by the side of a lake where waterfowl abound the plants must be protected in spring, as they are very partial to the young fleshy leaves. A. OSBORN.

DAPHNE CNEORUM.

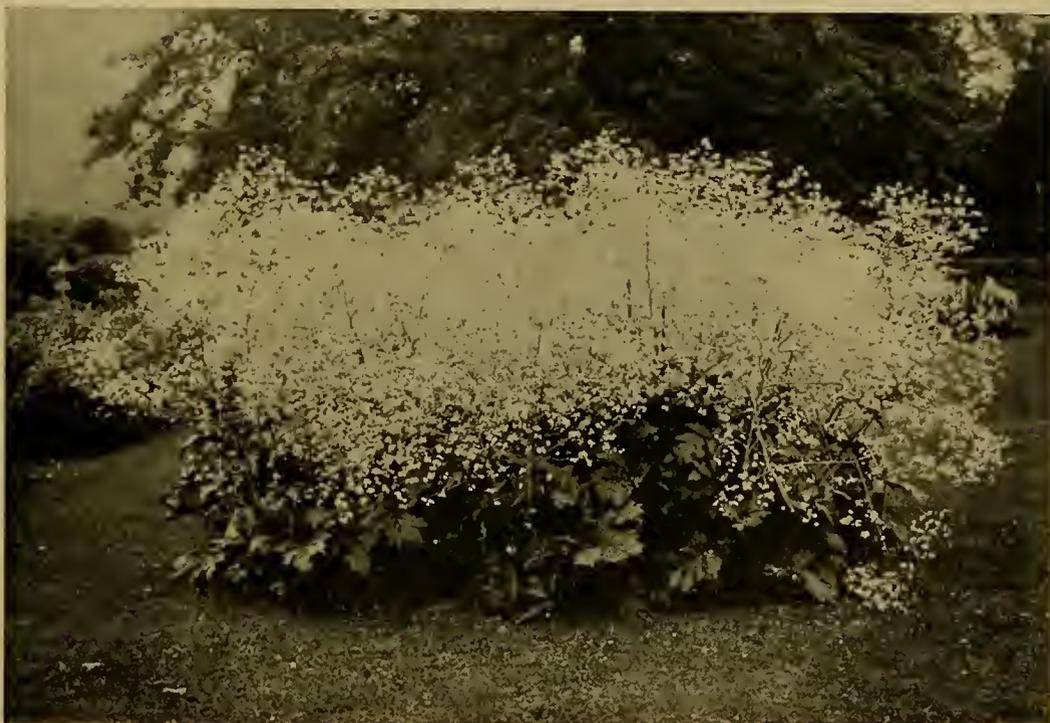
It is pleasant to know, page 366, of so great a success with this charming plant, which is a gem among gems. If such success can be as easily attained as suggested on page 432, viz., the mere admixture of calcareous matter to the soil, then lovers of beautiful hardy plants ought, indeed, to be grateful to "T." for his information. Pointing out successes and the probable causes are much more satisfactory than giving things a bad name by continually recording failures. When living in England I never, owing to the bad name generally given to it, gave *Daphne Cneorum* even a trial. I am inclined to support "T.'s" theory that lime and thorough drainage are the chief conditions of success, seeing that in this neighbourhood the plant is indigenous on heaths with a thin layer (6 inches to 9 inches) of calcareous loam, overlying unfathomable depths of glacial moraine, through which the heaviest rains percolate. After two days of sunshine the soil is perfectly dry again, and during a hot summer it becomes so parched that it seems marvellous how things like *D. Cneorum* and *Gentiana verna*, which are both in flower side by side simultaneously, can possibly exist. On the other hand, a little further away by the riverside this same *Daphne luxuriates* among the bushy undergrowths along the edges of a strip of woodland through which it pushes long, trailing shoots, on soil wet enough to harbour *Pinguicula*. Among the grass immediately beneath, the sub-soil, however, is the same as on the heaths, and no stagnant moisture is therefore possible. From these two extremes it would appear that dryness need not cause any anxiety, whereas in naturally moist places means should be adopted for providing perfect drainage. The following may be of interest as showing what this plant can endure. Late in the autumn of 1901 we traced the roots for a distance of quite a yard in order to lift a plant in its entirety. These roots ran along immediately below the grass fibre and between it and the "dead

soil" beneath. The same night a sharp frost prevented us from planting, so I packed the plant into a box, pushing some moss between the roots and put a lid on the box. The frost continuing, the plant remained in that state through the winter, when the lowest temperature registered was 24° below zero Fahr. Wet having also got inside the box I never looked at the plant again until my daughter told me it looked quite fresh and urged me to plant it. After having taken all that trouble in getting it up after a year of sulking, it suddenly broke forth into a blaze of colour, after which it commenced spreading marvellously, and now covers little less than a square yard of ground. Not a vestige of green has been visible this spring under the carpet of dense blossom. In another instance my little girl was also the means of proving a fallacy largely disseminated. I had always been given to understand that the charming little alpine *Armeria cæspitosa* would not bear fertile seeds, being difficult to strike from cuttings. This was very much to be regretted. I had examined the seeds for several years, and they really through the lens looked barren, simply husks. "I shall try them, nevertheless," said my daughter. And behold in less than a week quite a

probably only of biennial duration, though that is a moot point. A white variety of this fine *Campanula*, which has a very distinct character of its own, would be a valuable addition, if it could be found, to the summer border, for plants which flower in July are none too common. K. L. D.

THREE GOOD IRISES.

AMONG the June-flowering Irises few have such a noble appearance as *I. orientalis gigantea*, formerly known as *I. ochroleuca*, *I. aurea*, and *I. Monnieri*. The foliage of all three is precisely similar, and all have the same habit of growth, so that it is almost impossible to distinguish between them when not in flower. The blossoms, however, are very different. In *I. orientalis* the standards are pure white, and the falls white with a broad blotch of bright yellow down the centre. Four flowers are carried, one above the other, on a scape. In *I. aurea* the blossoms are of a uniform bright yellow, and in *I. Monnieri* the standards are pale yellow, and the falls of the same colour with a deep yellow blotch down the centre. Two flowers are carried on the scape in the two last-named species. In cultural directions it is usually stated



CRAMBE ORIENTALE AT KEW.

number of seedlings came up with seed leaves of a quite surprising size. There is nothing like trying for yourself. E. HEINRICH.

Planegg, near Munich (Bavaria).

CAMPANULA PATULA.

AN elegant *Campanula* is flowering in our garden this summer, the seed of which was collected a year or two ago on the borders of Rhenish Prussia. The tall stems in seed having attracted attention, some pods were brought home on the chance of its turning out to be worth garden room. It proves to be an unusually vigorous form of *C. patula*, and is not only handsome in the border with innumerable spikes 3 feet high of mauve-blue wide-open bells, but in a somewhat less buxom condition it is charming for the greenhouse, where the long wands of delicately poised flowers are very effective when grouped with suitable greenery. Though reckoned a British plant one seldom meets with it, and it is quite worthy of a place in the herbaceous border at middle distance. It is

that these Irises require a rich and moist soil, but with me they are growing vigorously and flowering well, with bloom spikes over 5 feet in height, in light soil on a sunny hillside, so that it is evident that those who only possess light soil need not hesitate to embark on their culture. S. W. F.

CODONOPSIS OVATA.

THIS plant, which is nearly related to the *Campanulas*, was introduced from the Himalayas in 1856, and has at different times been known under the names of *Glossocomia ovata* and *Wahlenbergia Roylei*. Though so long known in this country, and one of the most beautiful of June-flowering plants, it is but rarely met with. The drooping flowers, borne at the end of the stems, are bell-shaped and comparatively large. In colour the exterior is pale lavender, but the interior is very lovely. In the centre is a black, five-pointed star surrounded by five blotches of deep orange, above which are two zones of violet-purple, the ground colour being lavender.

The plant grows from 18 inches to 2 feet in height, and is herbaceous, dying down in the winter. In the south-west it is perfectly hardy. The bruised stem has a most unpleasant smell, this being slightly noticeable in the flowers themselves.

S. W. F.

IRIS GIGANTEA.

This Iris is very fine with me this season, the flower stems running up to a height of nearly 5 feet. It is, I think, the finest member of the Iris family, and well deserves a place wherever hardy flowers are grown. The large ivory white flowers are very imposing, and are valuable when cut flowers are in demand. Evidently this Iris likes plenty of moisture when making its growth, or it would not be in such fine form after the excessive rainfall of last summer. It is one of those things that do best when undisturbed for some years. In fact, it requires a couple of seasons to give sufficient strength to allow of the free production of bloom. This Iris, like all of similar growth, enjoys an abundance of good food. A top-dressing of manure, put on in winter, will materially increase the flower bearing capacity of this fine hardy plant. J. CORNHILL.

Byfleet.

LATHYRUS DRUMMONDI.

It requires some years to obtain a good specimen of this everlasting Pea. My best plant is about ten years old, and when in bloom has a diameter of about 6 feet. Under the most favourable conditions, however, it never seems to attain a height of 4 feet, and seems most at home when rambling over low bushes. I once saw a good specimen that had become well established in a shrubbery where it rambled at will, and where the flowers were in some measure screened from hot sun and heavy rains. In such a position it is much more satisfactory than in an open one, where the flowers quickly feel the influence of very hot sun and heavy rains. It is difficult to describe the colour of this Pea, it seems to be a mixture of terra-cotta, carmine, and red. It is so distinct that it should be grown wherever a place can be found for it. It is quite at home in very light sandy soils that parch in hot dry summers, and I do not think it is likely to flourish in ill-drained soils that border on clay.

With me this species does not seed at all freely. In a wet time the flowers do not set, and in a time of prolonged heat and drought the pods turn yellow and drop instead of swelling. Even when ideal weather prevails at flowering time, not more than 10 per cent. of the flowers will yield seed, and the pods rarely contain more than two good seeds.

This reluctance to produce good seeds and the difficulty experienced in getting them to germinate is probably the reason why this Pea is not more frequently seen in English gardens. If the seeds are kept till spring, not one will germinate that season, but some may do so the following year. They should be sown as soon as ripe, keeping them moist and cool, and they will come up at the close of winter.

Byfleet.

J. CORNHILL.

THE ROSE GARDEN.

NOTES ON SOME NEW ROSES.

FLORENCE PEMBERTON.—This is a grand exhibition Rose, but these notes are being written before the Temple Show. If it upholds its early promise it will be prominent at the Temple Gardens on the 6th inst. I am inclined to think it will prove to be the best of Messrs. Dicksons' 1903 set. It is a better grower than Edith D'ombrain.

Frau Lilla Rautenstrauch.—This, I think, promising, a sport sent out by Peter Lambert, and one of last year's Roses, deep yellow with a suspicion of rose, fine centre, opening well. It is hardly coppery orange as described, if the flowers I have seen were typical.

Frau Peter Lambert.—This has been excellent with me, another of Kaiserin Augusta Victoria seedlings, but a very pretty shade of pink. A hybrid Tea that has, I think, come to

colour. It is one of Messrs. Dicksons' 1902 set, and likely to be a favourite when better known. I think I am right in saying that it was shown by Messrs. Dickson under the name of Janet Scott. Those who like scent as well as form and colour should try John Ruskin.

Lady Moyra Beauclerc.—One of Messrs. Dicksons' Roses, and a very beautiful flower. The colour at times is indescribable. There is something reminiscent of Killarney, and yet it is quite distinct from that beautiful Rose. It missed the gold medal, but many a worse flower has been awarded that distinction. I think it comes better on cut-backs than when grown as a maiden.

Laure Wattinne.—A good grower with fine long buds, the colour is deep rose. It will, I think, displace some of the flowers of similar colour.

Louis Ricard.—This Rose seems to have been overlooked, at least I have seen no comments on it in the Horticultural Press, and yet if it always is going to flower like I have seen

it this season, I have no hesitation in saying that it is the best dark Hybrid Perpetual we have seen for many a long day. It is a fine grower, the colour dark velvety crimson, almost black. Sent out by Boutigny, the raiser of Commandant Felix Faure.

Mme. Edmée Metz.—A pretty flower of the general appearance of Mrs. Edward Mawley. A good grower, from Soupert and Notting.

Mme. Vermorel.—This is a good Tea, colour rose, shaded yellow, large buds. It is, I think, very promising. Good Teas are rare.

Mme. Viger.—A hybrid Tea of Viscountess Folkestone parentage. Very pretty in the bud. La France colouring.

Mme. Pauline Bersez.—A maiden plant of this with me has been very charming, creamy white with yellow

centre, yet distinct and delicate in form as well as in colour. A very free-flowering garden Rose that can be recommended.

Marie Crobier.—A deep coloured Caroline Testout, but longer and more pointed in shape. It resembles perhaps Mrs. W. J. Grant more than its parent. Messrs. Frank Cant and Co. sent me a very fine flower of this Rose.

Mrs. Oliver Ames.—A light coloured Mme. Cusin from America. A very pretty Tea.

Perle von Godesberg.—Another K. A. Victoria sport or seedling sent out as a yellow, but very little of that colour is apparent out of doors. It opens better, I think, than the parent, but I am afraid it will have to be treated as synonymous with K. A. Victoria.

Souvenir de Frau Ketten.—A good flower, but the colour is very fleeting. It must be cut in the bud state, when it is excellent.

Souvenir d'Helene.—Another Tea that I think worth noting, as it is a good grower and the flowers open well. Colour white flushed pink.



POLYANTHA ROSE CLAIRE JACQUIER OVER PORCH. (See page 59.)

stay. I have heard it generally well spoken of by several who tried it last year.

Goldelse.—A little deeper in colour than Franz Deegan, and, like that Rose, a sport from K. A. Victoria, but a better grower than its parent.

Helene Guillot.—Messrs. Cooling sent me some fine flowers of this variety, and I have since seen it growing well at more than one nursery. It is almost pure white, and comes from Messrs. J. B. Guillot. Quite up to exhibition standard when well grown. The buds have a salmon-coloured centre that disappears when they open fully.

Jeanne Buatois.—This has considerable merit from a decorative point of view, but is hardly up to show form. It has a pretty bud, pearly white, tinted flesh, with an occasional tint of yellow on the reflexed petal—a cross between Mme. Eugene Resal and, I believe, Merveille de Lyon.

John Ruskin.—This is a fine grower, the flowers are large and bright rosy carmine in

In writing of these new Roses one ought to remember, perhaps, that we have had an exceptional season, at least that is my experience. Maiden plants, although late, have done wonderfully well.

HERBERT E. MOLYNEUX.

Brantwood, Balham.

ROSE CLAIRE JACQUIER.

I SEND you a small photograph of a Rose tree in my garden which you may perhaps think worthy of reproduction in your excellent paper. It is the Polyantha Claire Jacquier, and this year it has been unusually beautiful. It covers some wire arches and measures 20 feet in width by 10 feet in height. The tree is eight years old, and it is protected on the north side by the stable shown in the picture. On the south side of the arch is Carmine Pillar, but, as you see, Claire Jacquier fairly smothers it.

R. C. MOUNT.

Lakefoot, Reading.

FELLENBERG.

A GROUP of this old Rose is very pretty with me just now, though the crimson colouring is not clear as in many other varieties. I have it with an under-planting of white Pansies, and the effect is very good. It is always bright in autumn, and lingers into the winter when the weather is kind. It requires very little pruning, may be planted in shrubbery borders. C.

AN ARTISTS' NOTE-BOOK.

GLAUCIUM FLAVUM TRICOLOR.

THIS is a dark-coloured form of *Glaucium flavum* from Asia Minor, and will prove very welcome to those who are fond of the Horned Poppy. It will doubtless prove a good border plant, and may be regarded as a particularly suitable plant for warm soils. The cupped flowers are large, of orange and mahogany-red, suffused with scarlet, a large, ovate blotch occurring at the base of each segment. It was shown by Messrs. Wallace and Co., Colchester, at the Royal Horticultural Society's show at Holland House held last week, and was then given an award of merit by the floral committee. H. T.

SOME ECHIUMS.

ABOUT the end of 1901 I received, through a friend, from Orotava, in Tenerife, seeds of six species of *Echium* indigenous to that island. Of these three have flowered in my cool greenhouse, without artificial heat during the winter. I send you herewith photographs of the two best.

Echium formosum.—Height, 4 feet 9 inches; flowers, bright pale indigo blue, with long stamens, rose-pink, each tipped with blue. The flower spike is about 18 inches long, the foliage rich green, tomentose in numerous dense heads on separate branches, the leaves 3 inches wide and about 12 inches long. This plant bore three flower spikes.

E. candicans giganteum.—Height, 6 feet 9 inches; flowers, pale rose madder, turning purplish when fading. The flower spike occupies the upper half of the tall single stem. Leaves rather closely whorled and evenly distributed around the stem, narrow, glaucous green, tomentose—some of the lower ones attaining 1 foot 8 inches in length, although measuring scarcely three-quarters of an inch at their widest part.

E. sp. (?)—Height, 4 feet; much branched,

10° of frost, but I have hopes that some of the above mentioned species may prove to be hardy in the southern parts of England.

WALSINGHAM.

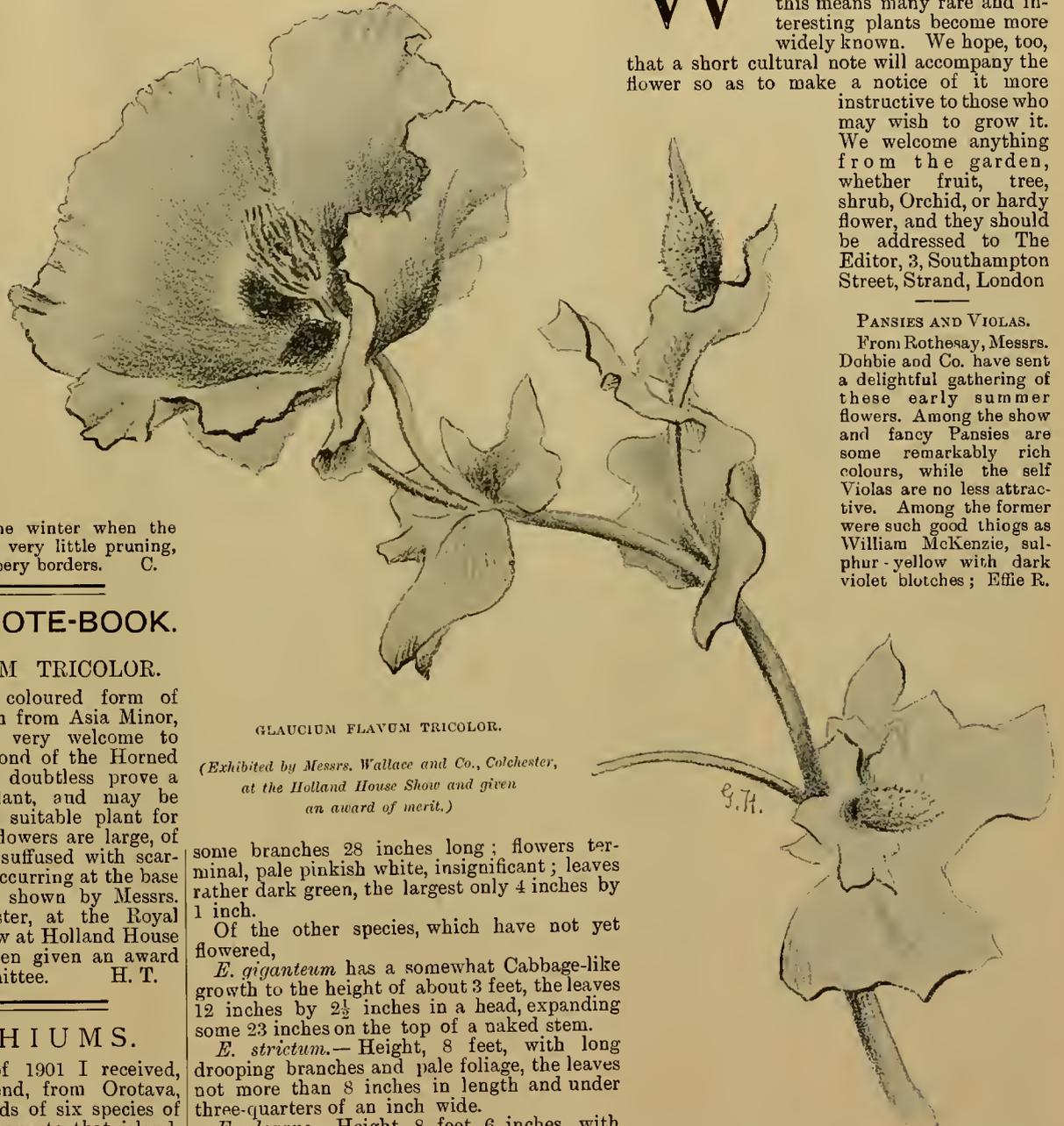
Merton Hall, Thetford, Norfolk.

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

PANSIES AND VIOLAS.

From Rothsay, Messrs. Dobbie and Co. have sent a delightful gathering of these early summer flowers. Among the show and fancy Pansies are some remarkably rich colours, while the self Violas are no less attractive. Among the former were such good things as William McKenzie, sulphur-yellow with dark violet blotches; Effie R.



GLAUCIUM FLAVUM TRICOLOR.

(Exhibited by Messrs. Wallace and Co., Colchester, at the Holland House Show and given an award of merit.)

some branches 28 inches long; flowers terminal, pale pinkish white, insignificant; leaves rather dark green, the largest only 4 inches by 1 inch.

Of the other species, which have not yet flowered,

E. giganteum has a somewhat Cabbage-like growth to the height of about 3 feet, the leaves 12 inches by 2½ inches in a head, expanding some 23 inches on the top of a naked stem.

E. strictum.—Height, 8 feet, with long drooping branches and pale foliage, the leaves not more than 8 inches in length and under three-quarters of an inch wide.

E. elegans.—Height, 8 feet 6 inches, with long naked stem, and branches also naked to half their length, widely spreading, some from 4 feet to 5 feet long. Leaves, pale green, attaining 9 inches in length by 1½ inches wide, and forming many heads at the ends of the branches.

I believe that the names given to these different forms are on the authority of Professor Wildpret, the late botanical curator of the Jardin de Acclimitacion at Tenerife.

The only one that has been tried in the open air (on the undercliff in the Isle of Wight) is *E. giganteum*. This has failed to withstand

Wilson, edged with white and heavily blotched with violet; David Wilson, violet, edged crimson and white; Constance Abercromby, very dark with pale yellow margins; James Dodds, violet and white; and Mrs. Yorke, red-violet with cream edge. There were some beautiful shades of colour among the Violas, some of the best being General Baden Powell, orange; Mrs. B. J. McCrae, pure white with yellow eye; Miss E. Fulton, Ada Anderson, and others. These Pansies have a rare charm in the summer garden, and are useful as an under-planting to Roses; they flower very freely.

GARDEN STOCKS AND DARK-LEAVED SPINACH.

Mr. E. Clemens, The Gardens, Trusley Manor, Etwall, sends superb spikes of Stocks known as "Carter's Branching." The white variety is very pure, and the purple of a good colour, but we prefer the former. There is a danger in getting the individual flower too large. Anything larger than these would be excessively coarse. Mr. Clemens also sends leaves of "a good red-leaved Spinach which has a nice effect for sub-tropical gardening, besides being of value in the kitchen. It is of excellent flavour when cooked, a pleasant green in colour, and stands well in summer." We think Beet is best out of the summer garden, unless it is very carefully placed.

PEA DRUMMOND'S PRINCESS.

Mr. E. Clemens, The Gardens, Trusley Manor, also sends a photograph of Drummond's Princess Pea and some pods. The photograph was taken on the 20th ult., and shows a variety of exceptional good bearing, and picking began on the 1st inst. It succeeds well at Etwall, the plants cropping heavily and the flavour is excellent. Our correspondent writes: "I have grown it in several districts and have never known it to fail. Its only fault is that it grows tall, which well repays for an extra number of Pea sticks."

FLOWERS OF CORDYLINA AUSTRALIS.

Mr. Bartlett sends from Pencarrow Gardens, Cornwall, a spray of Cordylina australis, with the following note: "Several good sized plants were planted out four years ago and two are now flowering. The dense head of flowers is fully 4 feet through, and the delicious perfume attracts swarms of bees; the flowers open freely when cut and placed in water. This Dracæna is much hardier than is generally supposed, for we often get as many as 20° Fahr. of frost during the winter."

ROSE GENERAL GALLIENI.

From Hewell Grange Gardens, Redditch, Mr. A. A. Pettigrew sends flowers of this Rose, whose outer petals are red and yellow, delightfully blended, while towards the centre the colours are rosy fawn and light yellow. Mr. Pettigrew sends the following interesting particulars: "The colouring of this Tea Rose is very beautiful. Note its substance, it never drops its petals, they wither on the flowers. The stem is strong and wiry, and its foliage of deepest green, with no appearance of mildew. Its one defect is the abortive state of the carpels, with absence of stamens, giving the fully opened flower rather a bloated appearance. General Gallieni is described by Messrs. Paul and Son as reddish violet, with white base and petals, fine bold buds, good."

EARLY-FLOWERING GLADIOLI FROM GUERNSEY.

Messrs. Charles Smith and Son, Caledonia Nursery, Guernsey, send many varieties of early flowering Gladioli, and flowers fresher and more beautiful in colouring we have never seen. There is a certain grace in this type that the stronger and larger forms do not possess, and it is for this reason that the varieties named may be recommended so highly for cutting. They have much of the *G. ramosus* blood in them. Ne Plus Ultra is a handsome flower, bright red in colour, with white blotch on each of the lower segments; Blushing Bride is bluish colour with red markings, a pretty combination; Crimson Queen, bright crimson, marked with purple on the lower segments; Peach Blossom, delicate pink; Pink Perfection, deep pink and white on the lower segments, a charming flower; The Bride, pure white; and Cardinalis, rich scarlet, with a white blotch on the lower segment. A very bright and useful collection.

FLOWERS FROM ARMAGH.

Mr. John McWalters sends from The Mall, Armagh, a boxful of uncommon plants. The *Alstroemerias* are very beautiful, warm and tender colours, and have monopolised a portion of the garden. *Cypripedium spectabile* is quite established

in a cool shady corner, and the stems and flowers show how much they appreciate the place they are growing in. Mr. McWalters sends also *Orchis foliosa*, and remarks that "a pretty little group has been growing in a rock garden for years." It is protected in winter. The flowers of *Ostrowskya magnifica* were very fine. We like to see the big bell-shaped cups of lilac-blue. We are reminded of the beauty of *Carpentaria californica* by a gathering of flowers. The shrub is in fine bloom at Armagh. Among other interesting plants sent were *Abutilon vitifolium*, *Scabiosa caucasica*, and *Polygonum baldschuanicum*.

JAPANESE IRISES AND OTHER FLOWERS.

Messrs. V. N. Gauntlett, Redruth, send flowers of several varieties of the Japanese Iris, *I. Kämpferi*, and other flowers. Of the former especially worthy of note are Monte Rosa, white, with pale lilac-purple edge; Seirin, pure white satin rose, warm purple with deeper veins; Japan, white, very broad segments, yellow at the base; Hiawatha, purple, veined with a richer shade; Ladysmith, purple; and Beauty and Francisca, both of purple colouring. Messrs. Gauntlett also send the beautiful *Zenobia speciosa*, also known as *Andromeda cassinæfolia*, and *Buddleia variabilis*.

SEEDLING DELPHINIUMS.

Mr. George M. Taylor, Pinkiehill, Inveresk, N.B., sends flowers of some very beautiful seedling Delphiniums for colour; the spikes are tall, straight, and the flowers are fairly close together, without, however, any of that ugly packing on the stem that disfigure some varieties. We enjoyed the colours, particularly an intense blue.

GALEGA HARTLANDI.

Mr. Hartland sends from his nursery at Cork flowers of this pretty Galega, which is a clear blue and white, and the foliage is variegated. We care little for this yellow in the leaf, as the flowers are quite sufficient colouring.

GARDENING OF THE WEEK.

FLOWER GARDEN.

CARNATION LAYERING.

AS soon as the Carnation flowers have been gathered or have faded layering should be done. After the old flower-stalks and all weeds have been removed it is advisable to prick over the surface soil, and if the bed is at all dry give a copious watering. The soil used should be finely sifted and contain a large proportion of leaf-soil to encourage root production, adding sufficient sand or grit to keep the compost porous. It is important to keep the mounds of good size and flat in shape, or during hot weather they will dry quickly, and the rain or water afforded will run off instead of permeating the soil. The pegs used are usually either made from old Birch brooms, which were cut during wet weather in the spring, or of Bracken, in which case they must be fairly new or they will be too brittle for the purpose. A handy man will quickly cut a large quantity with a pair of secateurs; but of whatever they are made the pegs must be fairly stiff and of good length. The shoots to be layered should be healthy and strong, but not too gross. A little practice will soon enable the operator to become proficient in layering. At the point it is intended to make the incision the leaves should be stripped off, and the cut, which should be made slanting in an upward direction to the middle of the stem, should be nearly 2 inches long, leaving about 4 inches of the growth to form the young plant. This should be carefully bent erect and pegged into the sifted soil, pressing it firm. Give a good watering at once, and damp with a fine rose towards the end of every warm, dry day. The layers should be well rooted in about six or seven weeks' time, when they should be severed from the parent

plant, and carefully planted in prepared beds or potted for wintering in frames.

PREPARING THE BEDS.

Where the Carnation plants will safely winter out of doors the beds should be prepared for their reception a few weeks beforehand. This allows the soil to settle before planting, and a crop of weeds can be easily cleared off while the ground is vacant.

The ground should be deeply dug and liberally dressed with well-rotted manure to encourage the plants to send their roots downwards and become well established before winter. Carnations so treated will be found to stand the winter more successfully than where the preparations are not so thorough.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

ACALYPHAS,

of which, perhaps, for decorative work there is none better than tricolor, are, indeed, useful during the autumn and winter. Insert the cuttings singly in 2½-inch pots, and plunge these in a brick bottom-heat in a close propagating frame, and for some days shade well from the hot sun. When rooted, pot them on according to the purpose for which they are required, but they will grow into useful-sized plants in 4-inch and 5-inch pots.

ALOYSIA CITRIODORA

is never more useful than when grown as a large bush plant for cutting or as small decorative plants in 3-inch pots. For the latter purpose the present is a good time to insert a few cuttings, either singly in 2½-inch pots or three to four round the sides of 3-inch size. When rooted they may be potted singly, or grown on without being disturbed, as they will in any case retain their foliage longer, and will look better than old plants or even those propagated in the spring. A rich sandy loam appears to suit them admirably.

LACHENALIAS,

the best of which, perhaps, is *L. Nelsoni*, should now be given a little attention. The bulbs, which for some time have been at rest, may now have a portion of the surface loose soil removed, and be top-dressed ready for growing on to flower in the same pots as last year, or they can be shaken out of the old soil, and the best or strongest bulbs selected for repotting, eight or nine together, in 5-inch to 6-inch pots. A few bulbs also should be placed in wire baskets, as when in flower they form objects of considerable beauty. Although it is unreasonable to allow the soil in the baskets to get very dry, it would prove just as much a mistake to keep the soil soddened with water before the bulbs begin to make roots. Sufficient water only should be given to keep the soil slightly or reasonably moist to encourage a free root development, as afterwards its application can be increased, and with better effect, according to the plant's requirement.

SCHIZANTHUS

now require to be considered. In some instances the dwarf variety (*Wisetonensis*) only is cultivated; others again prefer the taller growing *pinnatus*, *Grahamii*, or *retusus*. In either case, for early spring flowering, the plants should be raised from seeds to be sown now. These will germinate freely if sown in a light, sandy compost, and afterwards placed in a close humid atmosphere with attention to shading from hot sunshine. A high temperature is not required, 60° to 65° being quite hot enough. Immediately the young plants are through the soil remove the shade and admit light to keep them from becoming drawn, and afterwards air to strengthen their growth.

CYCLAMENS.

Strong plants of these should be given all the air possible. The frame lights during the day must necessarily be over the plants, with shade from strong sunshine, but at night remove the lights and allow the plants to be fully exposed. They will under such treatment grow sturdy, with

short leaf stalks, and their flowers, when properly developed, will be well above the foliage.

J. P. LEADBETTER.

The Gardens, Tranby Croft, Hull.

KITCHEN GARDEN.

TURNIPS.

THE last sowing of the early varieties should now be made. This ought to provide roots until the Swedes are fit for pulling. Ground that has been cleared of Potatoes will be suitable, a cool situation being best, as Turnips soon bolt if the weather is very hot. The ground need not be dug again if it is in good order, merely cleaning and raking it moderately fine for the reception of the seed will do. Golden Ball and Chirk Castle are both suitable for present sowings. Let the seed drills be 15 inches apart, and sow thin. It is a safe plan to coat the seeds with red lead by slightly wetting the lead and rubbing the seeds through it, or by securely netting the whole plot.

MARROWS.

During the last fortnight the weather has become warmer, and these are now making rapid growth. Marrows should not be allowed to grow thickly. The line should be spread out regularly, allowing sunshine to reach the flowers. Pegs may be used to keep the growths in position, as they are easily blown about by wind. The fruits should not be allowed to remain too long on the plant, but should be used when half-grown, or even smaller. See that Marrows never lack moisture. Little feeding will be needed, but an abundance of water at the roots is necessary.

PARSLEY.

To make sure of this crop another sowing should be made now for covering with frames. If a sowing was made in May some of the young plants should be pricked into frames and some into boxes. These are handy for lifting into a warm house in case of the supply running out. After pricking out the plants should be slightly watered and shaded from strong sunshine for a few days. Rows of Parsley in the open must not suffer from lack of water. This is one of the first things to show signs of distress during a dry period.

GENERAL REMARKS.

Hoeing and weeding is the chief work at this period. Continue to plant any vacant plots with Savoys, Greens, and Winter Cabbage. Broccoli may still be planted. Put stakes to Asparagus to prevent breakage by wind. Continue to plant out Lettuce and Endive, and continue weekly sowing of Radish, Mustard and Cress, &c. Remove all Potato tops, loose leaves, and all kinds of rubbish. The removal of such makes the kitchen garden more presentable and attractive. Pinch out the tips from late Beans when the pods are set. Persevere in the eradication of weeds, and if circumstances will not allow the garden to be perfectly clear from them an effort should be made to keep them from seeding at least.

Hopetown House Gardens, THOMAS HAY.
South Queensferry, N.B.

FRUIT GARDEN.

HARDY FRUIT.

ANY young trees which were planted last autumn, and more especially those which were planted late last spring, will require attention in watering and

mulching. During the last few weeks we have had a high temperature and drying winds, and trees growing in light soils are showing the effect of the drought by not making satisfactory growth. When water is supplied a sufficient quantity should be given to thoroughly reach all the roots. No liquid manure should be given to young and newly planted trees which are in satisfactory soil and making good firm wood. Strong growths are not desired to form fibrous roots. The mulching of these trees, and, in fact, all other fruit trees in light and well drained soils in a dry season cannot be over-estimated. The surface soil should in all cases be pointed up before mulching. When this is applied before the soil loses its moisture it is a great saving of labour. The trees should all be gone over and summer pruning finished, when a thorough washing out of all dead leaves with the hose will add considerably to the health of the trees. Continue to tie in and thoroughly



A GROUP OF ORCHIDS IN THE GARDENS OF J. LAWRENCE, ESQ., M.P., THE OAKLANDS, KENLEY, SURREY.

regulate the shoots of Peaches, Nectarines, Pears, and Apricots according to the training followed. Apply the hose-pipe vigorously and keep all insect pests in check. Give water freely to all wall trees that require it. The above varieties require liberal supplies during the time the fruits are swelling. Give liquid manure or light sprinklings of vine manure occasionally to trees carrying heavy crops of fruit.

RASPBERRIES.

These are yielding excellent crops of fruit and should be assisted with liberal supplies of liquid manure. All small canes which were overlooked earlier should be cut away to secure good strong canes for next year's fruiting. Remove old canes as soon as the fruit is gathered, to allow the young ones the benefit of full light and air to thoroughly ripen.

PLUMS AND CHERRIES.

The earliest varieties of these will have had all the fruits cleared off them, and should be removed and plunged out in the open and syringed daily. A light mulch will keep them from becoming too dry. Syringe and clear the trees of any red spider, green and black fly, before plunging. Rich top-dressings should be given to other choice late varieties, with plenty of light and air to obtain rich colour and finish them properly. Damp the stems and all available spaces in the houses, and well syringe with soft water until the fruits show signs of ripening, when direct syringing must be stopped. Early permanent trees of Cherries should have all the ventilation possible when the fruit is cleared, be well watered, and vigorously syringed with the hose-pipe, to keep the foliage healthy and the trees clean.

Impney Gardens, Droitwich.

F. JORDAN.

ORCHIDS.

ORCHIDS AT KENLEY, SURREY.

SHOWN in the accompanying illustration is a group of Orchids in the gardens of J. Lawrence, Esq., M.P., The Oaklands, Kenley, Surrey (gardener, Mr. John Bannerman). Prominent among them are *Dendrobium Dalhousiae*, *D. densiflorum*, *D. cretaceum*, *Cœlogyne massangeana*, and various *Cypripediums*, *Cattleyas*, and *Odontoglossums*. The inclusion of such diverse genera shows how comprehensive a collection is grown at The Oaklands, and to judge from the specimens represented they are all finely grown.

WORK FOR THE WEEK.

DENDROBIUM BRYMERIANUM.

It is a great pity that this Orchid does not grow and flower more freely. However, now that plants are generally given a more suitable compost and deeper receptacles a marked improvement is seen. This Orchid should never be disturbed more than is absolutely necessary, but when the compost has become sour it must be done, using fibrous peat and sphagnum in equal parts. On account of the copious supplies of water needed when they are growing, thorough drainage is essential; the pots should be half filled with rhizome. Those not requiring potting this season should have the surface renewed. Back bulbs should be cut away and they may be laid on the stage if an increase in stock is required, when they will soon break.

Give them a position in the coolest part of the stove house. Differing from most *Dendrobiums* this variety does not require to be kept dry at the roots when inactive; it does not need heavy supplies when it is not growing, but dryness at the roots is very detrimental to their well-being at any season of the year.

DENDROBIUM VENUS.

This most beautiful hybrid, obtained from *D. Falconeri* and *D. nobile*, is growing more or less all through the year, but now is the best time for its renovation. The compost should consist of equal parts of sphagnum and fibrous peat that has had the fine particles taken from it, mixed with sand and crocks. Potting should be performed very

lightly, giving preference to receptacles that have no side perforation. The intermediate house temperature is better than a hotter one at all seasons. Strong light is beneficial. During the autumn give only enough shade to prevent the foliage being disfigured. During bright weather a liberal supply of water is necessary.

DENDROBIUM PARISHII.

Resurfacing or potting may now be done. Use the same compost, affording thorough drainage, and have pans without side holes. It should be grown in a light position, in such a temperature as the *Cattleya* house. When in active growth give water freely, continuing till growth is completed. During the winter months very little water will suffice.

DENDROBIUM PRIMULINUM.

This is another species that prefers the *Cattleya* house temperature, and the growths are now advanced sufficiently to enable potting being done in the same way as advised for *D. Parishii*. Water must be given very sparingly, or the new growths will often decay. When the base of the growth has hardened somewhat, water may be given rather more freely if the weather is bright.

DECIDUOUS DENDROBIUMS.

Any plants that are in small pots and have made good growth and still show signs of growing may be carefully potted, taking the greatest care not to damage any roots. By this means the plants will be materially increased and the autumn roots will have fresh material on which to feed.

W. P. BOUND.

Gatton Park Gardens, Reigate.

NURSERY GARDENS.

GARDEN ROSES AT CHESHUNT.

IT is impossible to chronicle all the beautiful Roses that were in flower when we spent an interesting day recently in this world-famous nursery. The so-called garden Roses were in the full flush of their summer beauty. A few were past their prime for this year, but the majority were exactly right. We wish another name could be discovered for Roses that have no greater claim to the prefix "garden" than the daintily coloured Mildred Grant that figured so conspicuously in the prize boxes at the Temple show. All Roses should be for the garden, or of what value are they? And the word is apt to mislead or puzzle those who are not so well acquainted with the many groups of Roses as the learned rosarian. But whatever the name of the groups that cluster over pillar and arch and pergola, they have a beauty that one would never tire of, though it were with us for half the year, and we are glad that Messrs. Paul are working to prolong the season of the single and other flowers that have but a brief life in the midsummer days. We want varieties to be more perpetual, and the hybridists working on the correct lines will soon realise their desires. One of the most striking of the Rambler Roses was

Wallflower.—We have never seen hedges of Roses so brilliant and complete. The flowers are large for a rambling Rose, brighter in colour than those of *Crimson Rambler*, and cluster over the growth in such a way that almost every leaf is hidden, and, as Messrs. Paul say, "with a habit of growth somewhat flat, it easily lends itself to hedge or wall training." This firm won the first prize offered for Roses over an arch with this variety and the pretty pink and white *Leuchstern*. The variety *Wallflower* was raised at Cheshunt by Mr. John Laing Paul, and the way to get the plant in beauty is to cut out the four year old growths and prune it all the way up soon after Christmas. For gardens where a profusion of blossom is desired we can commend the variety *Wallflower* as the most satisfying. It might also be planted against a strong fence with the happiest results.

Una.—This is now fairly well known. There is a large bed of it, 70 feet in circumference, in the Royal Gardens, Kew, and Messrs. Paul have not raised a flower of tenderer colouring and sweetness

than this. It is the outcome of crossing the *Dog Rose* with *Gloire de Dijon*, the flowers white with a suspicion of pink, and relieved with golden stamens, the buds buff. It is growing near *Wallflower*, and the association is interesting, the one a Rose of dashing beauty, the other as modest as the wild Rose of the hedgerow. The place for it is against a fence or to form a low hedge.

The Tea Rambler.—This was everywhere, and it is almost impossible to have too much of it. The name is suggestive and appropriate. It is a Rose of rambling growth, and the flowers beset the slender, graceful shoots, which will sometimes reach a length of 14 feet, drooping with the weight of the salmon and pink flower clusters filled with fragrance of the true *Tea Rose*. In growth it reminds one of *Polyantha grandiflora*, and is a Rose for pillar or pergola, or to make a standard of for the purpose of letting the branches hang gracefully to the level of the ground. We care little for standard Roses, unless the variety is adapted for this training; but *Tea Rambler* is delightful grown in this way. It is also a hedge Rose of the greatest value, as Messrs. Paul have it, in this form too.

R. rugosa repens alba.—The noble plant of this at Cheshunt, covering a space of over 200 square feet, has been described before in THE GARDEN. It is a mound of stellate spotless white flowers, and for covering a bank is the queen of Roses.

R. macrantha.—Visitors to the recent exhibition in the Temple Gardens will remember this beautiful single Rose of waxy texture and soft pink and white colouring. Its flowers are large and delightful for the decoration of the table, as might have been seen at the exhibition, when, with this simple flower as the sole ornament, the first prize was gained by Miss Langton. It has the merit of lasting longer than any single Rose owing to the substance of its petals.

The wichuraianas.—This famous group of Roses was in many places, but we were most charmed with a bank of them in one spot, and this reminds us that a width of 12 feet by 9 feet allows about the right space for these rambling Roses. A hint as to culture is to cut out the old wood and lay last year's down. There were the type *Alberic Barbier*, *Gardenia*, the creamy-white *Jersey Beauty*, *Rene André*, one of the loveliest of all, *Rubra*, and a new hybrid that we like very much, *Francois Foucard*, of which the flowers are semi-double, lemon in colour, and produced with the greatest freedom. The *wichuraianas* were grown as standards also, and in whatever form they are never commonplace. *Adelaide Moule* is very pretty too, with its mantle of pinkish flowers.

Lady Battersea.—This Hybrid Tea has become popular very quickly, and received an award of merit from the Royal Horticultural Society last year when shown by the raisers, Messrs. Paul and Son. It is an excellent variety for forcing into flower early and in the garden also, which is not always the case. The two qualities do not always combine. The growth is very strong, the shoots long, and the flowers are not hidden among the leaves, whilst their colour is a bright cherry red, touched with orange at the base of the petals. It is a Rose full of charm, sweet in scent, and absolutely distinct.

Mrs. Allen Chandler.—This is a new, sweetly fragrant Bourbon Rose, a sport from *Mrs. Paul*, which was raised at Cheshunt, and must be accounted one of the finest of its race. The flower of *Mrs. Allen Chandler* is pure white, and has a pleasant fulness without a suspicion of coarseness, and it is very fine in autumn as well as in summer. This variety was raised by Mr. Allen Chandler, of Haslemere, and is especially recommended as a standard for London gardens. This is interesting, as few Roses are available for the neighbourhood of large towns, the most successful we can recall to mind being *Gloire de Dijon*, *Hon. Edith Gifford*, *Grüss an Teplitz*, *Mrs. Rumsey*, *Dr. Rouges*, *Mme. Alfred Carrière*, and *Alister Stella Gray*.

The Lion Rambler.—A very free and striking single Rose of a bright crimson colour. It was raised in this nursery, and may be associated with that other fine single Rose of greater renown—

Paul's Carmine Pillar. The two may well go together for the sake of prolonging the season, all too brief, the *Lion* not flowering until a week later. Messrs. Paul grow it as a pillar Rose and as a bush, and under both conditions with the correct pruning it is a complete success.

Dawn.—A Bourbon Rose raised at Cheshunt, and a seedling from *Mrs. Paul*. The flower is without the fulness of the parent or of *Mrs. Allen Chandler*, but its broad wavy petals are soft rose, a pretty tint which seems to shine in the sunlight. It is a Rose to make a bush of for the shrubby border.

A few hours spent here in the fulness of Rose time is well repaid, the collection is so complete. The *Rosa rugosa* group is represented by all the finest forms. There are *Rosa Korolkowi*, *R. rubrifolia*, *R. blanda*, almost thornless, the beautiful *R. sericea*, with its flowers borne along the stems in the way of a *Philadelphus*, *R. californica plena*, the pretty pink *Rosa Andersoni* mingling with the white of *R. repens alba*, *Cooling's* beautiful form of *R. Brunonis himalaica*, *R. carlica*, *Psyche*, *Euphrosyne*, the *Damson Rose*, the old double *Sweet Briar*, and *Miss Jekyll's* form of *Rosa arvensis*, the true *York and Lancaster*, *Francois Crousse*, which Mr. Paul considers the finest climbing red Rose, the brilliant *Cheshunt scarlet*, *Turner's* beautiful single Rose of shell-pink colour named *Lady White*, and several novelties among the *Teas* and *Hybrid Teas*, of which we shall make separate notes. The *Roses* of a bygone age are here too, and one, the most interesting, perhaps, the first *Hybrid Perpetual Rose du Roi*, and one's thoughts go back through the many years that have passed since this flower was first welcomed by the rosarians of those days. The whole Rose world has altered since then, and it is ever changing. During the years that are to come a race of autumn flowering climbers will have been raised, and the year almost encircled with the queen of flowers.

THE HOLLAND PARK SHOW.

HARDY FLOWERS (continued).

A MOST effective group of hardy flowers was that from Messrs. W. Cutbush and Sons, Highgate. Here, again, there was a feast of Lilies and the best of hardy plants. Of the Lilies the forms of *L. speciosum* were excellent, *L. Henryi* of great stature, *L. Krameri*, *L. candidum*, many good forms of *L. umbellatum* and *thunbergianum*, and, not least, a yellow-flowered *L. Henryi*, quite self-coloured save for a few faint stripes of red on the segments. This is most distinct, obviously a variety of the typical plant, with the same stature and habit generally. A further feature of this group was the great array of *Iris levigata* grown in pots, the finest thing of its kind we have yet seen. Some of the best were *Cassandra*, double deep lilac; *Flora*, deep blue; *Progress*, violet-crimson, very fine; *Venus*, pure white; and *Duchess de Belcourt*, pale rose. A really fine grouping of these valuable plants. *Water Lilies* in tubs, hardy *Sarracenias*, and similar things were grouped near. Herbaceous *Phloxes* in pots in flower, at each end, gave an added touch of beauty and variety, while the *Bamboos*, here and there disposed, contributed a welcome touch of elegance to the whole.

Messrs. T. S. Ware and Co., Limited, Feltham, grouped hardy cut flowers on a table and on the ground in considerable variety. In this exhibit there was no attempt at design, and the great wealth of material was arranged more from the mixed group standpoint. *Pentstemon*, *Phloxes*, *Gaillardias*, *Day Lilies*, *Lychnises*, the earliest *Sunflowers*, *Iris levigata*, *Campanulas*, *Lilies* of the *umbellatum* group, *Eremurus Bungei*, and others; *Eryngiums*, *Lathyrus latifolius albus grandiflorus* (very fine), *Delphiniums*, and many more. A set of three *Heleniums* were *H. grandicephalum cupressum* (a very early form), *H. Bolanderi Lemon Queen*, and *H. B. Golden Gem*. The two last are forms of *H. Bolanderi*, with decidedly tubular florets, giving quite a novel effect.

Hardy Water Lilies were splendidly shown by Lawrence Currie, Esq., Minley Manor, Farnborough, Hants (gardener, Mr. Profit). The flowers were cut, and well demonstrated the value of these things in the open. There were nearly thirty pans of these flowers, some of the more conspicuous being *N. alba candidissima*, *N. Marliacea albida*, *N. M. chromatella*, *N. Frœbeli* (a richly coloured form), *N. odorata minor*, *N. M. carnea* (very fine), *N. Laydeckeri liliacea*, and *N. ellisiana*, both finely coloured. This is perhaps one of the finest exhibits of these flowers that has been seen.

A grand lot of hardy flowers came from Mr. M. Prichard, Christchurch, Hants, the material excellent and well disposed. We are in this instance impelled to offer a word of praise by reason of the taste displayed in the grouping. We refrain from a mere enumeration of names, and single out *Helenium pumilum magificum*, *Spiraea palmata*, most brilliant in colour, *Sidalcea Listeri*, *Campanula lactiflora*, very fine; *Buddleia variabilis*, in excellent bloom, *Coriaria japonica*, *Iris Kämpferi*, *Astrantia major* separating *Gladiolus insignis* from *Spiraea palmata*, white and mauve *Scabiosa caucasica*, and *Eremurus Olga*. A good display of *Eryngium*, such as *oliverianum* and *giganteum*, *Galega Hartlandi*, *Campanula carpatica*, *C. e. alba* and *C. c. Isabel*, the last a large flower of deep violet, and *Centaurea ruthenica*. These were among the best in a very imposing lot.

A large and showy group of hardy flowers came from J. Bradshaw, Esq., The Grange, Southgate, N. (gardener, Mr. G. Whitelegge). This was an attractive arrangement, and contained *Calochorti*, Iceland Poppies, a brilliant lot of *Delphinium Belladonna*, *Gerbera Jamesoni*, *Lychnis haageana*, *Ostrowkia magnifica* (very fine), with *Pentstemons*, Lilies, *Campanulas*, and much more. Geums, tall *Verbascums*, and *Chelone barbata* were other good things.

Messrs. William Bull and Sons, Chelsea, had a small exhibit of early *Gladioli* and *Alstroemerias*.

Anemones from Messrs. Reamsbottom and Co., Geashill, King's County, Ireland, were a most brilliant lot. Singles and doubles in variety, with The Bride, pure white, and King of Scarlets, doubles, were of exceptional merit. King of Salmon is a distinct and good form, very pleasing in colour.

Messrs. George Jackman and Son, Woking, contributed *Phloxes*, *Delphiniums*, in which *Beauty of Langport* was well shown, also *Salvia ringens*, *Iris Kämpferi*, very good and showy, *Æoothera speciosa*, a large mass of *Campanula pusilla alba*, *Rudbeckia californica*, with such Lilies as *Henryi*, *auratum vittatum*, *Day Lilies*, and the like.

A large number of plants of *Campanula dichotoma* came from Messrs. J. Veitch and Sons, Chelsea. The branching plants are about 4 feet high, flowers violet-blue with dark coloured base.

From Mr. B. Ladhams, Shirley Nurseries, Southampton, came a great variety of hardy things that included *Gaillardias* in much variety; Pinks, Poppies, *Scabiosa caucasica grandiflora* (very fine), *Platycodon grandiflorus*, *P. g. album* (very pleasing), *Lychnis vespertina plena*, with *Delphiniums*, *Campanula persicifolia* in variety, were among the best in a showy lot.

Furcraea longeva, a noble specimen in flower and some 20 feet high, came from T. A. Dorrien-Smith, Esq., Trescoe Abbey, Isles of Scilly. The flowers are creamy yellow on pendent branches. The plant was grown in the open and is a native of Mexico.

The hardy plants from Mr. Amos Perry, Winchmore Hill, were one of the features of the exhibition. Some 80 feet in length, the arrangement was of hardy plants at either end with Water Lilies and aquatics in the centre. In this way a most charming and naturally disposed group was the result. The idea alone was good—the arrangement was good also. Early *Gladiolus*, *Arum Dracunculus*, *Calochorti*, *Azalea rosæflora*, *Lilium pardalinum*, *Campanulas* such as *garganica* *Moerheimeri* and *nobilis*, *Romneya Coulteri*, very fine, very beautiful *Ixias*, *Lilium Hansonii*, *Iris aurea*, *Eremurus Bungei superbus*, very fine; very light and graceful was *Campanula rotundi-*

folia alba in a large mass; Lilies and *Alstroemerias*; *Astrantias* and *Ixias*, always pleasing; *Campanula Wilsoni*, good; and many more bold and good things now in flower were shown. Among Water Lilies were *N. gladstoniana*, a glorious white, and *N. gloriosa*, one of the brightest of the reds; other good things were *N. lucida*, *N. Marliacea carnea*, *N. robinsoniana*, *N. ellisiana*, and many more other notable water plants were *Pontederia crassipes*, *Sagittaria angustifolia*, *Sibthorpia europæa variegata*, *Sagittaria variabilis*, *Potamogeton crispum*, and *Myriophyllum proserpinoides*. A good edging of a Mossy Saxifrage was a capital idea in the arrangement which has perhaps never been equalled.

Messrs. Cheal and Sons, Crawley, in addition to a large lot of Sweet Peas, contributed many good hardy flowers, such as *Eryngium*, *Alstroemerias*, *Iris lævigata*, *Helenium*, *Achillea The Pearl*, *Telekia (Bupthalmum) speciosa*, a fine and bold plant, *Spiræas*, *Carnations*, &c.

Of quite an imposing nature was the hardy plant exhibit from Messrs. George Bunyard and Co., Maidstone. Here we noted *Campanulas* in variety, especially of *C. carpatica*, *C. persicifolia*, and others. There were many *Alstroemerias* and such useful plants as *Coreopsis*, *Sidalcea Listeri*, *Thalictrum glaucum*, *Iris lævigata* in variety, *Lilium Martagon dalmaticum*, *Heucheras* in variety, *Gaillardias* very beautiful, *Phloxes* in variety, good and showy, *Monarda didyma*, *Centaurea macrocephala*, and *Stenactis speciosa* among the more prominent in a large and attractive lot.

The exhibit of hardy flowers and alpine plants from Messrs. Barr and Sons, Covent Garden and Ditton, was most attractive, some 500 feet of tabling being occupied with good things. The exhibit was in groups, and we saw the early *Gladioli*, *Alstroemerias*, and *Lilium testaceum* in full splendour. Here and there appeared rock plants, such as alpine Poppies, *Campanula carpatica pallida*, *C. pumila*, *C. punctata*, *C. pusilla alba*, the *Edelweiss*, *Goodvera pubescens*, and such like plants. Sweet Peas were in charming variety, also *Iris Kämpferi* and the newer Water Lilies, of which latter were seen many charming specimens. The towering inflorescence of *Phormium tenax*, the fruiting growths of *Coriaria terminalis*, and pretty flowers of *Lilium Martagon album* were all good. *Lilium Brownii* made a glorious group. Of this alone several dozen flowers were seen on stout, vigorous stems. *Lilium candidum* was very pure and good. *Heucheras*, *Ixias* and *Gypsophilas*, showy *Larkspurs*, with *Coreopsis* and *Acanthus* mingling with *Phloxes* and *Eryngium* made quite a feast. Towering near was *Lilium giganteum*, with its red-stained flowers. These are but a few in a very large group of hardy flowers, all of which were set up in sensible groups that gave a good idea of their garden value.

Messrs. Jones and Sons, Shrewsbury, had a large lot of *Iris*, chiefly English and Spanish kinds, and in excellent condition. Gold Cup and British Queen were among the best.

Messrs. J. Laing and Sons, Forest Hill, set up hardy flowers, with alpine plants in baskets, and the like. Of the latter we noted *Saxifraga sancta*, *S. valdensis*, *Thymus lanuginosa*, *Sempervivum arachnoideum*, *Sempervivum Lageri*, some species of *Dianthus*, &c. In the cut state were *Eryngium*, *Funkias*, *Day Lilies*, *Gaillardias*, *Iris Kämpferi*, &c.

Messrs. G. and A. Clark, Limited, Dover, had a good exhibit of hardy things, in which *Campanula grandiflora*, *C. lactiflora*, *Centaurea macrocephala*, *Coreopsis grandiflora*, *Gaillardias*, *Iris aurea*, *Astrantia carniolica*, *Day Lilies*, early *Gladioli*, *Campanula carpatica Riverslee*, *Senecio clivorum*, *Potentillas*, *Eremurus Bungei*, and many more were in good condition.

From the Misses Hopkins, Mere, Cheshire, came quite an excellent lot of hardy things generally in a pleasing group. There were *Larkspurs* and the smaller *Campanulas*, as *C. pulka*, *C. pusilla alba*, *C. garganica*, *C. persicifolia coronata alba*, *Lilium Martagon album*, *Cobweb Sempervivums*, *Astrantia major*, *Dianthus deltoideus*, *Galegas*, and Geums in variety, *Dianthus Napoleon III.*, *Erodium Reichardi*, a miniature alpine garden, with *Thrifts*, *Lychnises*, *Liliums*, and other plants.

From the Craven Nursery, Ingleborough, Clapham, Yorks, was shown a rockwork exhibit of a very charming description. *Sedums*, *Saxifragas*, single Pinks were all very pleasingly and quite naturally arranged. In trailing masses we noted *Campanula muralis*, *C. coespitosa*, *C. Stansfieldi*, a very charming plant, probably a hybrid; alpine Pinks, *Sempervivums*, *Primula capitata*, *Veronica incana*, and *Saxifraga valdensis* were among interesting things in this exhibit.

The hardy plant group from Mr. G. Reuthe, Keston, contained much of interest and beauty. *Malva moschata alba*, *Campanula turbinata pallida*, *C. pusilla alba*, *C. garganica*, very pleasing in fine tufts, a lovely exhibit alone, the true *C. Raineri*, a lovely lot of *Ixias*, very charming early *Gladioli*, the giant *Thrift*, *Hypericum cuneatum*, with scarlet buds and quite yellow flowers.

Near by was a fine colony of *Saxifraga longifolia* and a giant form of *Magnolia grandiflora*, the brilliant scarlet and gold of *Desfontainea spinosa*, a fine carpet of *Linnaea borealis*, &c., of *Liliums* we noted *L. dalmaticum*, *L. Marhan*, *L. Dalhaosoni*, *L. testaceum*, *L. Grayi*, *L. Martagon* in variety with others, *Eremuri*, English Irises, and *Larkspurs* were all freely shown, together with many other interesting plants.

SUNDRIES.

Messrs. Joseph Bentley, Limited, Hull, exhibited their patent insecticides in variety.

The Four Oaks Nursery Company, Sutton Coldfield showed specimens of the Undentable Syringes. Ohlendorff's Peruvian Guano and Manures were shown by the Anglo-Continental Guano Works, Leadenhall Street, E.C.

Horticultural sundries, mallets, and stakes in Ash were sent by Messrs. John Sills and Co.

Messrs. William Poore and Co., 139, Cheapside, E.C., exhibited oil stoves and other heating apparatus.

Junofloris for preserving cut flowers was shown from 95 and 96, High Holborn.

Mr. J. George, 14, Redgrave Road, Putney, S.W., exhibited horticultural sundries, as also did De Luzy, frères, Camberwell, S.E. Quixol, a preparation for removing grease and stains from clothing, was shown.

Messrs. Champion and Co., 115, City Road, E.C., showed their handsomely finished tubs for shrubs and plants.

From the Royal Doulton Potteries, Lambeth, were exhibited garden vases, sundials, &c.

The Rural table decorations were exhibited by Mr. Robert Sydenham, Tenby Street, Birmingham, and by Mr. Williams, Oxford Road, Ealing.

Messrs. William Wood and Sons, Limited, Wood Green, showed sundries, as, for instance, raffia, stakes, watering-cans, baskets, and tools.

Messrs. W. Herbert and Co., Hop Exchange, S.E., showed specimens of plant foods and various sundries.

Messrs. Fenlon and Son, Tudor Street, Whitefriars, E.C., exhibited their "unique" radiator, for hot water or steam, and other heating apparatus.

Messrs. Osman and Co., 132 and 134, Commercial Street, E.C., exhibited a large display of horticultural sundries as vases and bowls, artificial Palms, labels, knives, flower-boxes, &c.

The Acme Labels were shown by Mr. John Pinches, Crown Street, Camberwell, S.E. These zinc labels are well known for their durability and legibility.

Messrs. Pulham and Son, 71, Newman Street, Oxford Street, W., displayed a rock formation, the crevices of the miniature rock garden being planted with alpine, &c. Messrs. Pulham and Son also showed garden vases, sundials, garden seats, &c.,

Messrs. Cory and Co., Limited, 13 and 15, Finsbury Street, E.C., exhibited various fumigators, lawn sand, manures, vapour cones, and other specialities.

The Hull Chemical Works, Limited, and Messrs. D. Dowel, Ravenscourt Avenue, W., showed horticultural sundries.

Messrs. J. P. Harvey, Kidderminster, showed specimens of their fertiliser.

The Pattison Lawn Mower Boots were shown by Mr. H. Pattison, Streatham, S.W.

Slugdeath, said to be a certain exterminator of slugs, was shown by Messrs. H. Stanley and Co., South Nerwood.

Messrs. Valls and Co., 16, Coleman Street, E. C., showed Beetlecute, a cockroach, beetle, and ant exterminator.

Messrs. H. Castle and Sons, Millbank, S.W., exhibited garden seats in teak.

Garden tools were shown by Messrs. Thomas J. Syer and Co., 45, Wilson Street, Finsbury.

The Economic Fencing Co., Ltd, Billiter Street, E.C., exhibited their patent chestnut fencing.

ESCALLONIA PHILIPPIANA.

As shrubs for the open ground near London and farther to the north, the Escallonias as a whole are of but little value. One has to go to Cornwall and such-like places to see them really thriving without any protection. Elsewhere they are killed to the ground in hard winters, and are only really satisfactory when grown on a wall. *Escallonia philippiana*, however, makes an exception to the rule. It is quite hardy, and flowers freely every year. It acquires also an additional value in blossoming so late in the year as July. At the present time its twigs are crowded with the small pure white fragrant flowers. It is quite distinct from the rest of the Escallonias, not only in the flowers, but in the narrow lance-shaped leaves. It has a graceful habit, the branches on older specimens assuming an arching or almost pendulous mode of growth. It is a native of Valdivia, and has been introduced for more than twenty years. The charming *Escallonia langleyensis*, a hybrid raised by Messrs. Veitch, has this species for one parent, and inherits from it a good deal of its hardiness.

SOCIETIES.

HARROW FLOWER SHOW.

THE annual exhibition of the Harrow Horticultural Society was held on the 13th inst. in Bowden House School

Grounds, Sudbury Hill, by kind permission of the Rev. W. S. Price. Owing to the long spell of hot weather several growers failed to exhibit in the Rose classes. With this exception, however, an excellent display was made. The large Rose class, for thirty-six blooms distinct, was well contested, and some fine flowers were shown by the competitors. Garden Roses in vases were a feature. With a bloom of Bessie Brown, Mr. Frank Spencer, a local amateur, won two silver medals for the best Rose in the amateurs' and members' classes. White Maman Cochet from Messrs. B. R. Cant and Sons was the best bloom in the show. The exhibition was favoured with delightful weather, which must have been gratifying to Dr. Williams and Mr. Spencer, the honorary secretaries, Mr. Lewis Pawle, the honorary treasurer, and their colleagues.

ROSES (OPEN).

Thirty-six blooms, distinct: The first prize and Jubilee Challenge Cup were taken by Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, with a stand of beautiful flowers, fresh, and of uniform quality. Among them Kaiserin Augusta Victoria, Lady Moyra Beauchere, Catherine Mermet, and Mme. Hoste were perhaps the best. Messrs. Frank Cant and Co., Colchester, were second with a more irregular exhibit. However, Victor Hugo, Frau Karl Druschki, Mildred Grant, and Horace Vernet were lovely blooms; third, Messrs. D. Prior and Son, Colchester.

Twelve Roses, distinct, Tea or Noisette: First, Messrs. B. R. Cant and Sons, Colchester, with beautiful blooms of Ethel Brownlow, The Bride, Mrs. Mawley, Mme. Cusin, and others; second, Messrs. D. Prior and Son, Colchester, Mrs. E. Mawley, Bridesmaid, and Muriel Grahame being splendid; third, Messrs. Frank Cant and Co., Colchester. Maman Cochet was very good.

Twelve bunches of garden Roses in vases: First, Messrs. Frank Cant and Co., Colchester, who had a beautiful lot of Killarney, Fellenberg, The Garland, Anna Marie de Montravel, and Fabvier; Messrs. Paul and Son, Cheshunt, were a good second, Mme. Ravary, Gustave Regis, Liberty, and others being finely represented.

AMATEURS.

Twenty-four Roses, distinct: First prize and a cup, Mr. O. G. Orpen, West Bergholt, Colchester, with a pretty stand of blooms, of which Mme. Hoste, Maman Cochet, Mildred Grant, Kaiserin Augusta Victoria, and Catherine Mermet were the best; Miss Beatrice Langton, Hendon, was second with blooms of less regular quality, though A. K. Williams, Mrs. John Laing, Horace Vernet, and others were very good. No more entries.

Twelve Roses, distinct, not open to growers of more than 1,000 Roses: Miss Beatrice Langton, Hendon, was the only exhibitor in this class, and was given first prize for a good stand of blooms.

Twelve Roses, distinct, Tea or Noisette: First, Mr. O. G. Orpen, Colchester, with finely formed blooms of Mrs. Edward Mawley, Lady Roberts, Mme. Hoste, Maman Cochet, Mme. Cusin, and others; second, Miss Beatrice Langton, Hendon, with small flowers.

MEMBERS ONLY.

Twelve Roses, distinct, N.R.S. Silver Medal given to the first prize lot: First, Mr. Frank Spencer, Harrow, White

Maman Cochet, Bessie Brown, and Victor Hugo being excellent blooms; second, Dr. Williams, Harrow, Marchioness of Londonderry, Maman Cochet, and Princess of Wales being well represented.

Six Roses, distinct: First, Mr. J. N. Stuart, with only fair blooms; second, Mr. S. Acton Davis; third, Mr. L. R. W. Forrest. There were several more competitors.

Six Roses, Tea or Noisette: First, Mr. Frank Spencer with good though small blooms, Jean Ducher being perhaps the best; second, Mr. Arnold Mitchell. There were no more entries.

Four Roses of any one variety: First, Mr. Frank Spencer with very good White Maman Cochet; second, Mr. Lewis S. Pawle with Maman Cochet; third, Mr. J. T. Horley with the same variety.

Three vases of Roses: First, Mr. Frank Spencer with very good blooms of Maman Cochet, White Maman Cochet, &c.; second, Mr. J. T. Horley; third, Mr. L. R. W. Forrest.

Four bunches of garden Roses (prizes given by Paul and Son, Cheshunt): First, Mr. C. Graham with a pretty exhibit; second, Mr. S. Hargreaves; third, Mr. J. Osmond, all of whom showed well.

Six Roses (amateur members only): First, Mr. A. Bryans, with very good blooms; second, Mrs. Burton; third, Mr. Donald Hawkins.

One bunch of Roses in vase: First, Mr. Maurice Groom, with good blooms too closely bunched; second, Mrs. Burton, showing Crimson Rambler; third, Miss Edwards.

BEST ROSES.

The National Rose Society's silver-gilt medal for the best Rose in the show was given to a lovely bloom of White Maman Cochet shown by Messrs. B. R. Cant and Sons, Colchester.

A bloom of Bessie Brown shown by Mr. Frank Spencer, Harrow, won the silver medal offered for the best Rose in the amateurs' classes and members' classes respectively.

CUT FLOWERS.

Collection of cut flowers: First, Mr. S. Lithgow, with good Crimson Rambler Roscs, Delphiniums, *Gnothera*, Centaurea, &c.; second, Mr. Arthur S. Hargreaves.

For twelve bunches of cut flowers Mr. E. Graham was first, *Lilium candidum* being very good; second, Rev. E. C. E. Owen; third, Mr. Lewis S. Pawle.

Six bunches of cut flowers: First, Mr. E. W. Howson, with an attractive exhibit; second, Mr. Arnold Mitchell; third, Mr. J. MacAndrew. This class was well contested, and the flowers made a bright display.

Sweet Peas were largely shown, and appear to be popular with the Harrow exhibitors. The Rev. E. C. E. Shea won first prize for twelve bunches, showing good blooms of the best varieties, although they would have looked much better in tall classes; Mr. H. T. Gordon was a good second, with the flowers too closely bunched; third, Mr. Lewis S. Pawle, who also showed well. There were several other competitors.

Six bunches of Sweet Peas: First, Dr. Williams; second, Mr. E. W. Howson; third, Mr. A. Bussweiler.

There were other classes for Delphiniums, greenhouse flowers, Stocks, and Pansies.

Plants, fruits, and vegetables were well shown, some excellent produce being alaged. Strawberries, Gooseberries, and Currants were the principal fruits exhibited, and Messrs. Arthur S. Hargreaves, G. Acton Davis, J. T. Horley, J. A. Stuart, and Mrs. Oakley Fisher were the chief prize-winners. There was keen competition in the cottagers' classes for cut flowers and Grasses.

DECORATIVE CLASSES.

There was keen competition in the classes for table decoration, the first prize being taken by Mrs. A. W. Perkin, who used a salmon-pink *Clarkia*, *Gypsophila*, and Grasses, with *Smilax* on the table, a very pretty effect resulting; Miss Milce, who used mauve Sweet Peas, Scabious, and white Carnations, with *Gypsophila*, was second; Mrs. Arnold Mitchell, with blue Scabious and Delphiniums, Asparagus and *Smilax*, was third.

Flowers in vase: First, Miss Hawkins, with Caroline Testout Rose; second, Mrs. Pawle, with a bold arrangement of Delphiniums, Gladioli, &c.; third, Mrs. Oakley Fisher.

Cut flowers in basket: First, Mrs. A. W. Perkin, who used Pink Roses, Carnations, and Pelargoniums; Mrs. A. J. Obermayer, with rose-pink and red Sweet Peas and *Gypsophila*, was second; third, Mrs. Pawle, with Japanese Iris and mauve Sweet Peas.

Bowl or vase of Roses, open to lady amateurs within 25 miles of Harrow: First, Miss Beatrice Langton, with white Tea Roses in vase; second, Mrs. Burton; third, Mrs. Pawle.

NON-COMPETITIVE EXHIBITS.

Messrs. William Cutbush and Son, Highgate, N., exhibited a group of hardy flowers, such as Phloxes, Lilies, Gaillardias, Delphiniums, &c.

Messrs. Gage and Barker, Harrow, showed horticultural tools and implements.

Messrs. Paul and Son, Cheshunt, exhibited hardy flowers in variety, including Coreopsis, Lilies, Statice, Heuchera, Phlox, Eryngiums, &c.

Messrs. J. Peed and Sons, West Norwood, exhibited a group of Malmaison and Tree Carnations in pots.

Messrs. James Naylor and Sons, Harrow, set up a small group of Lilliums, Palms, and other foliage plants.

THE WALTON ROSE SHOW.

THE third exhibition of the Walton and District Rose and Flower Society held in the grounds of The Grange, by kind permission of Mr. Frank



A FLOWERING SPRAY OF ESCALLONIA PHILIPPIANA.

H. Cook, was a great success. The fine weather attracted many visitors, and the show itself, in regard both to the number of entries and the quality of the exhibits, was far in front of its two predecessors. The amount of local interest taken in the show was much greater, and the organisation left nothing to be desired in the hands of the following officials: Committee—Mr. C. A. Wehh (chairman), Mr. A. E. Copland, F.R.H.S. (vice-chairman), Mr. R. Alford (Walter), Mr. Arthur Savidge, F.R.H.S., Mr. C. L. Gordes, F.R.H.S.; hon. treasurer, Mr. H. Lance Gray, F.R.H.S., Sandhurst, Walton; hon. secretary, Mr. C. Haddon Gray, Maindee, Walton. The judging was carried out by Mr. J. W. Jones, of Woking, Mr. A. Higgett, of Hampton, and Dr. A. Masoo, of Walton, the last-named adjudicating in the decorative classes. The exhibits were contained in three marquees, and made a capital show. There were some good groups of miscellaneous plants, and Sweet Peas attracted seventeen entries. Another large class was that for six R vase blooms, and the table decorations were also a strong and effective feature. A new class was that for hardy flowers, and it was well filled. In the two cottagers' classes, there was only one entry in each, and that only good enough to secure a third prize. It is hoped that another year there will be many more exhibits, as it is desired to encourage floriculture among cottagers. The professional classes contained some fine exhibits, as always, but the distinguishing feature of the show was undoubtedly the extraordinarily good display made by the amateurs, who easily excelled their efforts a year ago. The competition in the class for six blooms, and that for Sweet Peas, was exceptionally keen, and the judges had considerable difficulty in making the awards. Excellent non-competitive exhibits were shown by Messrs. George Jackman and Son, of Woking, Roses and herbaceous flowers; Messrs. Barr and Sons of Ditton, herbaceous; Messrs. J. Peel and Son, West Norwood, Acers, Carnations, and Japanese Maples; and Messrs. Fletcher Brothers, Ottershaw, herbaceous. In the absence, through the death of a relative, of Mrs. Norman Rushworth, wife of the president (Dr. Rushworth), the prizes were distributed by Mrs. F. H. Cook, to whom a vote of thanks was accorded. In the accompanying list of awards, the prize-winners, except where otherwise stated, belong to the parish of Walton.

LIST OF AWARDS.

Open to all nurserymen, thirty-six single blooms, distinct: First and National Rose Society's silver-gilt medal, D. Prior and Son, Colchester; second, Spooner and Son, Woking. Twenty-four single blooms: First, Prior and Son; second, W. Taylor, Hampton; third, Spooner and Son. Twelve distinct Teas or Noisettes: First, Prior and Son; third, Fletcher Brothers, Ottershaw. Eighteen bunches garden Roses, distinct: First, Spooner and Son; second, W. Taylor; third, Fletcher Brothers. Nine bunches single Roses and Sweet Briar varieties, distinct: Second, Spooner and Son.

Open to all Amateurs.—Eighteen distinct single blooms: First, T. B. Gabriel, Woking; second, E. Mocatta, Adlestone.

Local Classes.—Open to amateurs within a five mile radius: Twelve distinct single blooms: First and F. J. V. Furnival silver challenge cup, E. Mocatta; second, Craster Usher, Claygate; third, Mrs. H. Wadham, Shepperton. Six single blooms, prizes given by Messrs. B. R. Cant and Sons, Colchester: First, Mrs. Dumas; second, Dr. A. Mason; third, G. M. Edwards. Three single blooms: First, Claude Magnolia, Esher; second, Lloyd Davies, Adlestone; third, Walter Griffiths. Six bunches garden Roses, distinct: First, W. R. Alderson; second, E. Mocatta. Six single blooms, any one variety: First and National Rose Society's bronze medal, presented by the hon. secretary, E. Mocatta; second, Mrs. H. Wadham; third, W. Griffiths.

Cottagers' Classes.—Twelve roses, any kind, prize presented by president: Third, Mrs. Hiron. Three bunches garden Roses: Third, Mrs. Hiron.

Ladies' Classes.—Table decoration: First, silver-plated Rose bowl, presented by Mr. H. Lance Gray, Mrs. Copland; second, cut-glass Rose bowl, Mrs. H. Lance Gray; third, two cut-glass specimen glasses, Mrs. Cecil Baker; very highly commended, Mrs. Wimple; highly commended, Mrs. Liversidge. Epergne, bowl or vase: First, Mrs. Alderson; second, Mrs. Dumas; third, Mrs. C. Scott. Bouquet: First, Mrs. H. Lance Gray; second, Mrs. C. C. Newman; third, Mrs. A. Packer. Basket: First, Miss Shepherd; second, Miss Copland; third, Mrs. C. C. Newman.

Divisional Classes.—Division A, open to all. Six varieties Sweet Peas, distinct: First, E. Mocatta; second, G. Riley; equal third, G. M. Edwards and Lloyd Davies. Epergne Sweet Peas: First, Mrs. C. C. Newman; second, Mrs. C. Scott; Mrs. H. Lance Gray. Division B, local. Group of plants: First, G. Riley; second, J. Bryant; third, H. Lance Gray. Division C: Three bunches zonal Pelargoniums: First, W. R. Alderson; second, Lloyd Davies. Six bunches hardy flowers, distinct: First, Mrs. Gordes; second, G. Riley; third, Miss Shepherd. Three bunches hardy flowers: First, Miss Shepherd; second, H. Lance Gray. Six bunches violas: second, H. Lance Gray. Division D, children under fourteen. Bunch garden flowers: First, Miss D. L. Power; second, Miss Brenda Wimple. Collection wild flowers and grasses: First, Miss Margery Milner; second, Miss Mary Owen; third, Miss Agnes Bowyer. Basket Roses: First, Miss Phyllis B. Wimple; second, Miss Mason.

Special prizes.—Mr. E. Mocatta won a silver cup, silver medal, and bronze medal. Mrs. Dumas won a bronze medal. The medals were presented by Mr. W. R. Alderson, A. E. Copland, and A. Savidge.

READING ROSE SHOW.

The second annual exhibition of the Reading and District Rose Society was held in Forbury Gardens on Wednesday, the 13th inst. The tents were erected among the ruins, and kept much cooler than if they had been in the open. Although several growers were disappointed at the last

moment owing to their blooms being spoilt by the hot weather, there was an excellent display, and some very good blooms were shown. Messrs. Alex. Dickson won the National Rose Society's silver medal for the best bloom in the exhibition with Horace Vernet, and Mr. J. H. Evans had the best bloom in the local classes, winning the Reading Society's silver medal with Gladys Harkness. The weather was perfect, and the attendance appeared to be good, so it is to be hoped that the labours of Mr. J. T. Strauge (chairman of committee), Mr. W. L. Walker (hon. secretary), and their colleagues achieved the success they deserved.

OPEN CLASSES.

For forty-eight blooms, distinct, Messrs. Alex. Dickson and Sons, Limited, were first with lovely blooms of Horace Vernet (medal bloom), Fran Karl Druschki, Dean Hole, Lady M. Beauchier, and others, all beautifully fresh. There were no more competitors.

For twenty-four blooms, distinct, Messrs. J. Jefferies and Son, Cirencester, were first. Bessie Brown was a lovely flower, and Duchess of Portland, Mildred Grant, and others were very good. Mr. Charles Turner, Slough, was a good second, the dark-coloured blooms being especially fine; Mr. George Prince, Longworth, Berks, was third.

For eighteen Teas or Noisettes, Mr. George Prince, Longworth, Berks, was first, White Maman Cochet, La Boule d'Or, Innocente Pirola, and Princess of Wales being beautifully shown; Mr. Henry Drew, Longworth, Berks, was second, with blooms of less even quality; third Messrs. Jefferies and Son, Cirencester.

Twelve blooms of any Hybrid Perpetual: First, Messrs. Alex. Dickson and Son, Limited, Newtownards, with Marie Beaumann in fine form; second, Messrs. Jefferies and Son, with very good Mrs. John Laing; third, Mr. Henry Drew, with Suzanne M. de Rhodocanachi.

Twelve blooms of any Hybrid Tea: First, Messrs. Alex. Dickson, with a lovely lot of Mildred Grant; second, Mr. George Prince, showing Bessie Brown.

Twelve any Tea or Noisette: First, Mr. George Prince, with White Maman Cochet; second, Mr. Charles Turner, Slough, showing the same variety; third, Mr. Henry Drew, with poor-coloured Comtesse de Nadaillac.

Eighteen distinct Roses, three blooms of each: First, Messrs. Alex. Dickson and Sons, Limited, Newtownards, with Mildred Grant, Kaiserin Anusta Victoria, Dean Hole, E.Y. Teas, and others well represented. There were no more competitors.

Eight distinct Roses, three blooms of each: First, Messrs. J. Jefferies and Son, Cirencester, Alfred Colomb, Ulrich Brunner, and A. K. Williams as the best; Mr. Charles Turner, Slough, was a good second; and Mr. Henry Drew third.

Eighteen bunches of garden Roses: First, Mr. George Prince, Oxford, with a charming display, W. A. Richardson and Bennett's Seedling being among the best; Mr. Charles Turner, Slough, was second, Mme. Falcot and Abel Chatenay being very good.

AMATEURS (OPEN).

Twenty-four blooms, distinct: First, Conway Jones, Esq., Huddlecote, Gloucester, with lovely White Maman Cochet, Mildred Grant, and others; second, W. Colin Romaine, Esq., Old Windsor, with small blooms.

Twelve blooms, distinct: First, Rev. F. Page Roberts, Strathfieldsaye Rectory, Fran Karl Druschki and Comtesse de Nadaillac being the best; Dr. Seaton, Lynton, was second, having a very large bloom of Mildred Grant; third, D. H. Evans, Esq., Pangbourne.

Twelve Teas or Noisettes: First, Conway Jones, Esq., with finely coloured but small blooms; second, Dr. Seaton, Mrs. Edward Mawley being well shown; third, Rev. F. Page Roberts.

Twelve blooms of any one variety: First, Conway Jones, Esq., with beautiful White Maman Cochet; second, Rev. F. Page Roberts, with Bessie Brown; third, John T. Strange, Esq., with White Maman Cochet.

Six blooms, distinct: First, G. W. Tyser, Esq., Mortimer, Ulster being the best bloom; second, Miss Ravenscroft, The Gables, Reading.

LOCAL CLASSES.

Eighteen blooms, distinct: First, W. Colin Romaine, Esq., Old Windsor, with very good blooms, especially good being Lady M. Beauchier, Charles Lefebvre, Alfred Colomb, and Souv. de Pierre Noting; second, Rev. F. Page Roberts, with some good flowers also; third, John T. Strange, Esq.

Twelve blooms, distinct: First, J. H. Evans, Esq., Pangbourne, Gladys Harkness (medal bloom), Abel Carrière, and Mrs. J. Laing being excellent; second, Lady Sutton, Benham Park, Newbury (gardener, Mr. Howard), Mildred Grant being very good; G. W. Tyser, Esq., Mortimer, was third.

Six blooms, any one variety: First, John T. Strange, Esq., Aldermaston, with Bessie Brown; second, D. H. Evans, Esq., with Caroline Testout; third, Mr. C. H. Taylor, Elm Road, Reading.

Twelve Teas or Noisettes: First, John T. Strange, Esq., with lovely Comtesse de Nadaillac, Mrs. Mawley, Maman Cochet, and others; second, Rev. F. Page Roberts, who showed excellent Maman Cochet, Boule d'Or, and others.

Six blooms, Tea or Noisette: First, Charles E. Keyser, Esq., Aldermaston Court, with good blooms, which had, like many more, suffered from the heat; second, Lady Sutton; third, D. H. Evans, Esq.

Six blooms of any Tea or Noisette: First, John T. Strange, Esq., with very good Maman Cochet; second, Rev. F. Page Roberts, showing White Maman Cochet; third, D. H. Evans, Esq., with Maman Cochet.

AMATEURS WITHIN THREE MILES OF READING.

Twelve blooms, distinct: First, Mrs. Ashby, Ashdene, Reading, with Captain Christy as the best; second, Mrs. Falcon Steward; third, H. W. Dunlop, Esq.

Six blooms, distinct: First, O. A. Shrubsole, Esq.; second, W. P. Monck, Esq.; third, Mrs. J. Leach.

Mrs. Ashby was first for six blooms of Teas or Noisettes; Mr. F. W. Smith, Reading, for six distinct; Mrs. Falcon

Steward for three blooms of any Tea or Noisette; and Mr. George Boyd for six blooms of any one variety; Mrs. Ashby won for a basket of Roses and for a vase of Roses; Mrs. Mount was first for three buttonholes; and Mrs. Walker for three sprays of Roses.

Six blooms, any one variety: First, Mrs. Falcon Steward, with Bessie Brown; second, O. A. Shrubsole, Esq., with Mrs. J. Laing; third, Mrs. Ashby, showing Maman Cochet.

The first prize for a decorated dinner-table was won by H. W. Dunlop, Esq., Maisomette, Earley, who used sprays of a single white Rose, with Asparagus and Fern; Mrs. Keep, Ferrises, Woolhampton, was second, using a large single white Rose rather too heavily.

Mrs. Ashby, Ashdene, Reading, was first for six bunches of garden Roses with a splendid exhibit. Lady Sutton won for six bunches of singles. Leopold McKenna, Esq., Honeys, Twyford, Berks, was first for twelve bunches of garden Roses with a delightful lot; H. W. Dunlop, Esq., being second.

There was keen competition for twelve vases of Sweet Peas (prizes given by Mr. Robert Sydenham), the first prize going to L. McKenna, Esq., Honeys, Twyford (gardener, Mr. Nyc), for a lovely exhibit of Gorgeons, Sadie Burpee, America, Navy Blue, Prince Edward of Teck, and others; second, C. E. Keyser, Esq., Aldermaston Park (gardener, Mr. Galt) with hardly such fine blooms; third, W. Hills, Esq., Slough, who also showed well. Three more prizes were awarded.

Messrs. W. Edwards and Son, Sherwood, Nottingham exhibited Edwardian table decorations.

Messrs. Phillips and Taylor, Bracknell, Berks, showed very attractive group of Japanese Irises, Water Lilies Carnations, &c.

Mr. George Phippeo, Reading, exhibited floral designs.

WOLVERHAMPTON FLORAL FETE.

JULY 12, 13 AND 14.

THE morning of the first day opened gloriously, in marked contrast to the weather of the first day in 1903, when the tents were blown down during the night and had to be re-erected in the early hours of the morning. It was a true flower show day, a brisk breeze tempering the heat and making the atmosphere agreeable, though it was close under the tents. It was a very fine show, and the entries were so extensive that a new tent had to be added, and one had to be lengthened by 40 feet. There was, as usual, a very large attendance, and the Mayor, Alderman Johnson, presided at the luncheon to the judges.

PLANTS.

Groups arranged for effect were scarcely as numerous as usual. In the open division Messrs. Cypher and Co., Queen's Road, Cheltenham, were placed first with one of those charming arrangements they are in the habit of setting up. Messrs. Artindale and Son, nurserymen, Sheffield, were second, and Mr. G. H. Kenrick (gardener, Mr. J. P. Macdonald), third.

Excellent groups arranged on much the same lines were shown by gardeners and also by amateurs.

Specimen plants of stove and greenhouse are always a leading subject at Wolverhampton. Messrs. Cypher and Co. came in first with sixteen plants, having as a background five noble Palms and Croton evansianus, also what we have not seen for many years, a fine specimen of the pink Linum-like Chironia ixifera, Statices intermedia and profusa, Bongalvillea Cypheri (brilliantly coloured), Allamandas nobilis, and Hendersoni, &c. Mr. W. Finch, Coventry, was second with twelve plants. Messrs. Cypher and Son were again first with four fine Palms, Croton Montefontaineensis, Chironia ixifera, Ixora regina (very bright), &c.; second, Mr. W. Vause, Leamington, also with some excellent specimens.

Messrs. Cypher and Co. also had the best collection of Orchids, a very effective arrangement; Mr. W. Vause was second. Ferns were shown in sixes, very good specimens taking the first prize for Mr. G. H. Kenrick, Mr. J. A. Kenrick (gardener, Mr. T. Cryer), being second. Messrs. Cypher and Son were also first with six Palms, having fine examples; Mr. W. Vause came second.

Collections of twelve plants made a charming feature, and once more the Cheltenham firm came first with their specimens of Ixoras, Acalypha hispida (finely coloured), Chironia, Clerodendron fallax, &c.; second, Mr. W. Vause; third, Mr. W. Finch. Collections of flowering plants were represented by subjects of one character, thus Mr. G. H. Kenrick came first with a group of Hydrangeas, Mr. H. Lovatt (gardener, Mr. R. Sharpe), coming second with Cannas. Groups of Streptocarpus and Lilies were also shown. Mr. F. Davis, Pershore, had the best group of tuberous Begonias, staging very fine double varieties.

CUT FLOWERS.

Roses are always a leading feature at Wolverhampton, several classes for them being provided and very handsome prizes offered. There were three collections of seventy-two blooms, Messrs. Harkness and Co., Hitchin, adding to their successes this season by taking first prize with excellent examples of Alfred Colomb, Marie Baumann, Reynolds Hole, Maréchal Niel, Dupuy Jamin, Mrs. John Laing, General Jacqueminot, Maman Cochet, Gustave Piganeau, Frau Karl Druschki, Countess of Rosebery, Fisher Holmes, Bessie Brown, Mildred Grant, Horace Vernet, Ulster, Helen Keller, &c. Mr. Hugh Dickson, Newtownards, Belfast, second, and the King's Acre Nursery Company, third. With forty-eight blooms Messrs. Harkness and Son were again first with Marie Baumann, Prince Arthur, Innocente Pirola, Horace Vernet, Mildred Grant, Florence-Pemberton, White Maman Cochet, Mrs. Cocker, Duchess of Bedford, Mme. Delville (a very fine Rose), Ben Cant, Bessie Brown, Her Majesty, Mme. C. Craplet, Mme. Cusin, Mrs. John Laing, White Maréchal Niel (delicate sulphur), &c.; second, Mr. H. Dickson; third, Messrs. Townsend and Son. With eight varieties in threes, Messrs. Harkness and Co. again came first, their best blooms being Marie Baumann, White Maman Cochet, Bessie Brown

Prince Arthur, Her Majesty, Maman Cochet, Mildred Graet, and Horace Vernet; second, Mr. H. Dickson, who had to good character Her Majesty, Mrs. John Laing, Duke of Wellington, and Marchioness of Londonderry; third, Messrs. Perkins and Sons, Coventry.

With twelve bunches shown with foliage and buds as cut from the plant, Mr. George Prince was first with excellent varieties. Helene, Maman Cochet, Souv. de President Carnot, White Maman Cochet, Crispin Rambler, Himalaica (a charming free flowering single white), Bellefleur, Marie van Houtte, and Climbing White Pet, a nice assortment of garden Roses; Messrs. Townsend and Son were second. With twenty-four Roses Mr. George Prince, Oxford, was first. He had in good character, White Maman Cochet, Maréchal Niel, Mildred Graet, Bridesmaid, Xavier Olibo, Bessie Brown, &c.; Messrs. Perkins and Son were second. With twelve Roses, new varieties of the last three years, Messrs. Perkins and Son were first with Mildred Grant, Florence Pemberton, Obergartner Terks, Amy Cochet, Mme. Olivier, Alice Graham, Robert Scott, and Duchess of Portland as the best; Messrs. Harkness and Co. were second with Frau Karl Druschki, Mildred Grant, Duchess of Portland, Ben Carl, Alice Lindsell, Robert Scott, &c. With twelve blooms of dark Roses, the King's Acre Nursery Company were first with bright A. K. Williams, Mr. H. Dickson was second with Ulrich Brunner, and Messrs. Townsend and Son third with Earl Dufferin. With twelve light Roses Mr. G. Prince was first with Bessie Brown, Mr. H. Dickson second with Mrs. John Laing, and Messrs. Perkins and Son third with Mildred Grant. With twelve Tea-scented varieties Mr. George Prince was first with good blooms of Muriel Grahame, Bridesmaid, Catherine Mermet, Devoniansis, Souv. de S. A. Prince, Maman Cochet, White Maman Cochet, &c.; second, the King's Acre Company. With six varieties of Sweet Briars Messrs. Perkins and Son were first, and Mr. C. T. Mander (gardener, Mr. J. F. Simpson) second, both with unnamed varieties. With nine vases of Teas and Noisette Roses, seven blooms in each, Mr. George Prince was first with Maman Cochet, Souv. de S. A. Prince, White Maman Cochet, Mme. C. Kuster, Comtesse de Nadailac, Golden Gate, &c., being the only exhibitor. Bowls and vases of Roses were shown in their respective classes. Roses were also shown in seven classes by gentlemen's gardeners and amateurs, the Rev. J. H. Pemberton, Havering, and Messrs. Denison and Whittle being the principal prize-winners, while amateurs alone exhibited in two classes.

Floral decorations were numerous. Bouquets made a fine display, the best for the hand came from Messrs. Perkins and Son, and Mr. M. Jenkinson, Newcastle, was second, both making use of bright Orchids. The best bridal bouquet, which consisted of pale Orchids, came from Mr. M. Jenkinson; Mr. G. Barnett, Kidderminster, was second. Messrs. Perkins and Son came first with a bridal bouquet, using delicate Orchids. Mr. M. Jenkinson was second.

The best collection of decorative plants and bunches of cut flowers came from Mr. A. R. Dutton, Bexley, who had charming vases of Carnations mingled with decorative plants. Mr. W. Finch came second. There was also a class for an arrangement of hardy flowers, but the awards had not been made at the time our report was taken. The best display of plants or floral arrangements was furnished by Mr. J. E. Knight, Wolverhampton, a very bold and finished piece of work having Bamboos at the back with bright Crotons, Caladiums, and various cut flowers. Mr. G. H. Kenrick was second with a tasteful table collection admirably arranged, and Messrs. Artindale and Son third, who had a combination of floral decorations, plants, &c.

The best dinner-table decoration was furnished by the Leamington Nursery Company, Orchids being used with excellent effect. Mr. M. Jenkinson was second, his table being arranged in much the same manner. The best table arranged with Sweet Peas was set up by Mrs. E. Pitt, the varieties employed being delicately tinted; Mr. H. A. Canadine, Stourbridge, was second. There were several arrangements of Pansies and Violas; they were generally well done. Here, again, the awards were delayed. There were arrangements in Sweet Peas, but we could find only a second prize awarded to Mr. Knight, Bradmore.

The best eighteen varieties of Sweet Peas came from Mr. E. Amies, Stafford, five varieties being staged. Messrs. Hinton Brothers, Warwick, were second. Mr. H. Eckford offered special prizes for twelve varieties. Mr. R. Piazanni, Sheffield, was first with very fine examples of Lady Grizel Hamilton, Countess of Fowis, Hon. Mrs. E. Kenyon, Coccinea, Black Knight, Miss Willmott, Jeannie Gordon, &c. The classes for Mr. R. Sydenham's special prizes for twelve bunches, brought a large competition. Mr. W. Marple, Puckridge, was placed first with Miss Willmott, Dorothy Eckford, King Edward VII. (very fine and bright), Lottie Eckford, Jeannie Gordon, Agnes Johnston, &c. Mr. J. Read, The Gardens, Bretby, was second.

FRUIT

was represented by excellent produce, Strawberries being the weakest feature. The best four bunches of Grapes came from Lord Saville, Kniford Abbey (gardener, Mr. Doe), who had two excellent bunches each of Muscat of Alexandria and Madresfield Court. The Grapes shown in this and other classes by Mr. Doe were one of the features of the show. The Duke of Newcastle, Clumber (gardener, Mr. C. Barker), was second with a bunch each of nicely finished examples of Buckland Sweetwater, Foster's Seedling, Black Hamburg, and Madresfield Court. The Earl of Carnarvon, Bretby (gardener, Mr. J. Read), was third. The best two bunches of white Grapes were finely finished Buckland Sweetwater from Mr. Doe. The Earl of Lathom, Ormskirk (gardener, Mr. B. Ashton) was second with the same. For two bunches of black Grapes Mr. Barker came first with well finished Madresfield Court; Mr. Doe second with good bunches also. The veteran, Mr. T. Bannerman, Blithfield, was first with the best dish of Peaches, having very good Royal George. Mr. Ashton and Mr. Read came first with a dish of Nectarines, and Mr. J. H. Goodacre, Elvaston, was second, both with good Lord Napier. Mr. C. T. Mander, Wolverhampton (gardener, Mr. J. F. Simpson), gained the first

prize with three dishes of Strawberries, having Royal Sovereign, Leader, and Sir Joseph Paxton; Mr. Goodacre came second with the Laxton, Royal Sovereign, and La Grosse Sucree. Mr. J. Evans, Wolverhampton, had the best three dishes of Tomatoes; Mr. Read was second. Mr. Doe was placed first with six dishes of fruit having well balanced and finished two bunches of Muscat of Alexandria and Madresfield Court Grapes, Stirling Castle and Dymond Peaches, Improved Downton Nectarines, Melon, and Transparent Gage Plums. Mr. Goodacre was second with excellent black Hamburg and Muscat of Alexandria Grapes, Chancellor Peaches, Elruge and Lord Napier Nectarines, Melon Lady Sudeley, and Apples and Figs. Mr. T. Bannerman was third. In the Gentlemen's Gardeners' Division for six dishes of fruit, Mr. Doe was again first with Madresfield Court and Muscat of Alexandria Grapes, Goshawk Peach, Improved Downton Nectarine, Figs and Melon. Mr. Goodacre with black Hamburg and Muscat of Alexandria Grapes, Stirling Castle Peaches, Elruge Nectarines, Melon, and Jules Guyot Peas. Mr. Barker was third.

Vegetables were a fine feature, and some excellent produce was staged. The first of Messrs. Sutton and Sons' special prizes for a collection of six kinds was won by Mr. Beckett, gardener to Lord Aldenham, Elstree, who had model samples. Mr. W. L. Bastin, gardener to Sir A. Henderson, Bart., Faringdon, was a good second. With six kinds, special prizes being offered by Messrs. E. Webb and Sons, Mr. Beckett was again first, and Mr. Bastin second. They also offered prizes for the same number of kinds, open to gentlemen's gardeners. Messrs. Hewitt and Co., Birmingham, and Messrs. Baker, Wolverhampton, offered prizes which brought good competition.

Groups of plants and also collections were shown by gardeners, but time did not admit of gathering up particulars, while a division was set apart for amateurs who do not employ a gardener, in which cut flowers, table decorations, and fruit were shown.

A large tent was set apart for cottagers and children, and here could be seen a varied and most interesting exhibition, the competition in the children's classes being very keen. It was a show in itself, and needed to be seen to be appreciated.

There was, as usual, a large number of exhibits of a miscellaneous character, and several medals were awarded, but as the list was not made public until late, a correct record could not be gathered up. One striking exhibit was from Baker, Wolverhampton, who filled nearly the whole of one side of a tent with Violas, Sweet Peas, Roses, a fine ground bank of zonal Pelargoniums, &c., with some elaborate table decorations. Messrs. Webb and Sons, Stourbridge, had a very tasteful arrangement of floral arches of Sweet Peas, and in addition Lilies, hardy flowers, &c. Messrs. Hinton Brothers, Warwick, had a fine collection of Sweet Peas shown in vases, remarkable for their brilliancy of colour; Messrs. R. Smith and Co., Worcester, had hardy cut flowers; Mr. J. H. White, Worcester, the same; Mr. H. Lovat, Low Hill, had a group of Malmaison Carnations, and Messrs. Clibran and Son, Altrincham, the same and plants of Kalanchoe flammea; Messrs. Jarman and Co., Chard, had Sweet Peas and hardy flowers; Messrs. Dicksons, Limited, Chester, hardy flowers, including Roses, &c.; Mr. E. Murrell, Shrewsbury, had Roses in variety; Mr. W. Knight, Bradmore, Ferns, &c.; Mr. W. Walters, Acock's Green, Violas; Messrs. W. Artindale and Son, Sheffield, Violas, Carnations, &c.; Mr. H. Brownhill, Sale, a very interesting collection of improved annual Chrysanthemums, single and double; Mr. R. Sydenham, Birmingham, floral decorations of Gladioli, Carnations, &c.; Mr. Vincent Slade, Taunton, a large collection of fine zonal Pelargoniums; Messrs. Hewitt and Co., Solihull, vases of Carnations; Messrs. R. Smith and Co., Worcester, a large group of Carnations, &c.; the Vineria, Limited, Acock's Green, Roses, &c.; and a group of Malmaison Carnations from Mr. Halliday, gardener to the Earl of Dartmouth.

At the luncheon following the judging, at which the Mayor presided over a large company, testimony was borne by the judges and others to the excellent arrangements made by Mr. W. E. Barnett and his staff.

The show took place, as usual, in West Park, the spacious conservatory in which is well furnished, and the flower garden arrangements most attractive.

EALING HORTICULTURAL SOCIETY.

DELIGHTFUL weather favoured the fourteenth annual summer exhibition of this society on the 6th inst. By the kindness of Leopold de Rothschild, Esq., it was held in Gunnersbury Park, a beautiful place for the purpose. This, apart from the excellent display, had doubtless much to do with the good attendance of visitors. We refer briefly to some of the salient features of the show.

For a group of plants arranged in a space 12 feet by 6 feet, first honours were secured for an effective display by Mr. A. G. Dixon; second, Mr. J. Harris. In a group 9 feet by 6 feet, neat arrangements secured the prizes to Messrs. J. Bishop and M. Hulbert. Fine foliage plants were successfully shown by Messrs. Harris and Spence, the latter exhibitor coming well to the front with Fuchsias, followed by Mr. M. Hulbert. Ferns were an interesting class. In the principal class for these the prizes were gained by Messrs. J. Harris and H. W. Underhill. An attractive class was that provided for twelve Streptocarpus, not less than six distinct, the leading prize-taker being Messrs. H. Peal and A. G. Dixon, the same exhibitors securing the honours for well-flowered Gloxinias.

The Rose tent was a centre of great attraction. For forty-eight blooms, premier honours were secured by Messrs. Harkness and Co. with some fine flowers. Specially noticeable were Frau Karl Druschki, Caroline Teatout, Alice Lindsell, Her Majesty, Mrs. Cocker, Mildred Graet, and Maman Cochet. Messrs. G. and W. Burch were a creditable second. With twenty-four blooms honours were reversed with these well-known exhibitors, both showing admirable flowers. The society's silver cup for twenty-four Roses, not less than twelve varieties, was well won by Mr. W. Owen

with some grand blooms, the second prize (silver-gilt medal of the National Rose Society) going to Mr. F. Goodenough for some very creditable flowers.

There was a keen competition in the principal class for table decorations, for three stands or vases of flowers, first honours being ultimately accorded to Mrs. J. C. Peal, in which Carnations, Sweet Peas, Irlises, Gypsophila, &c., were tastefully disposed features. Mrs. Noy was second; Sweet Peas were charmingly used. In the class for two bunches of black Grapes, well-finished examples secured the leading prizes to Messrs. F. G. Gledstanes and Mr. H. Peal, the same exhibitors being awarded the prize for white Grapes. For four dishes of fruit, distinct, the prizes were gained by Messrs. Peal and Noy with creditable productions.

As is always the case here, the cottagers made a fine display of vegetables. Anyone familiar with the allotments at Ealing Deao and St. Mary's would not be surprised to see such highly creditable produce, in many instances superior to contributions from professional growers.

The non-competitive section was a very beautiful and attractive one. A grand group was staged by Mr. George Reynolds, the well-known gardener at Gunnersbury Park. Here were splendidly flowered examples of *Ixora coccinea*, *I. Fraseri*, and *I. Dufii*, towering Palms, grandly coloured Crotons, and a very fine specimen of *Acalypha hispida* were noteworthy. Similar praise must be given to the fine trees (bearing ripe fruits) of Nectarines and Plums contributed by Mr. James Hudson from Gunnersbury House.

Very creditable was an extensive group of Japanese Acers, with an effective foreground of *Kalmia latifolia*, from Messrs. W. Fromow and Sons, Chiswick.

Mr. Russell, Richmond, sent an excellent display of stove and greenhouse plants. Here were the broeze-tinted *Dracaena russelliana*, fine Palms, *Caladiums*, and Crotons.

Mrs. H. B. Smith, Broadway, Ealing, always noted for her excellent exhibits, contributed some very tastefully arranged bouquets, &c.

Mr. George Canon sent a nice collection of cut Roses in good variety, whilst Sweet Peas were admirably shown by Mr. Hawkins.

CROYDON SUMMER SHOW.

THE thirty-seventh summer show of the Croydon Horticultural Society was again held to the grounds of Brickwood House, Addiscombe, by kind permission of Mr. Percy T. Reid, on Wednesday, the 6th inst. The show was favoured with beautiful weather, and the attendance throughout the afternoon and evening, combined with the excellent quality of the Roses and other flowers, and the plants, and fruit, and vegetables combined to make it in every way a success. Although clashing with the National Rose Society's Exhibition, the Beckenham Horticultural Society's Show, and several other local shows, for the most part the classes were all well filled, and a feature of the show was the Roses, which were indeed worthy of an exhibition, and the Sweet Peas, the specimens of the latter shown being of quite exceptional quality. The Gloxinias, too, of almost every hue and shade, reflected the utmost credit on the exhibitors. Silver medals for Roses were awarded to Mr. E. M. Eversfield, of Horsham, for a beautiful specimen of Mrs. John Laing, and to Mr. A. Tait, of Leatherhead, for a fine bloom of Horace Vernet. Amongst the plants was a group exhibited by Mr. C. J. Salter, of Reigate, including some rare Orchids, Pelargoniums, and other plants. Mr. J. R. Box obtained a silver medal for his group of rock plants, as also did Mr. T. Butcher for a very effective table decoration.

The arrangements for the show were again in the hands of Mr. A. C. Rofey, his long experience in these matters being of the utmost value.

ROSES.

Forty-eight Roses, distinct: First, Messrs. D. Prior and Sons, Colchester; second, Messrs. B. R. Cant and Sons, Colchester.

Twenty-four Roses, distinct: First, Messrs. D. Prior and Sons; second, Messrs. B. R. Cant and Sons.

Twenty-four Roses, distinct: First, Mr. F. J. Jeffries, Willis Road, Croydon; second, Mr. T. Butcher, Shirley; third, Mr. J. R. Box, West Wickham.

Eighteen Tea or Noisette Roses, distinct: First, Messrs. D. Prior and Sons; second, Messrs. B. R. Cant and Sons.

Twelve Roses, one variety: First, Messrs. D. Prior and Sons; second, Messrs. B. R. Cant and Sons; third, Mr. F. J. Jeffries.

Twelve Tea or Noisette Roses, one variety: First, Messrs. B. R. Cant and Sons; second, Messrs. D. Prior and Sons.

AMATEURS.

Thirty-six Roses, distinct, challenge cup or bowl: First, A. Tait, Esq., Downside, Leatherhead; second, Mrs. Haywood, Woodhatch Lodge, Reigate; third, E. M. Eversfield, Esq., Denne Park, Horsham.

Twenty-four Roses, distinct: First, Mrs. Haywood.

Eighteen Tea or Noisette Roses, not less than twelve varieties: First, E. M. Eversfield, Esq.; second, Mrs. Haywood.

Six Roses, distinct: First, A. Tait, Esq.; second, Mrs. Haywood.

Twelve Roses, one variety: First, Mrs. Haywood; second, E. M. Eversfield, Esq.

Twelve Roses, distinct: First, E. M. Eversfield, Esq.

Twelve Tea or Noisette Roses, distinct: First, E. M. Eversfield, Esq.

Twelve Roses, distinct, challenge bowl for the year and National Rose Society's silver-gilt medal: First, E. M. Preston, Esq.; second (also silver-gilt medal), W. Holme Davis, Esq.; third, F. S. Rich, Esq., 18, Chichester Road, Croydon.

Six H.P. Roses, distinct: First, C. T. Moore, Esq., Glen-garry, Campden Road, Croydon; second, F. Annison, Esq., St. Augustine's Avenue, Croydon.

Six Tea or Noisette Roses, distinct: First, C. T. Moore, Esq.; second, F. S. Rich, Esq.; third, E. M. Preston, Esq.

Six Roses, one variety: First, E. M. Preston, Esq.; second, F. S. Rich, Esq.; third, F. E. Annison, Esq.

Cut flowers, twenty-four varieties: First, Mr. C. J. Salter, gardener to Mrs. Haywood.

Twenty-four bunches of hardy cut flowers, outdoor: First, Mr. M. E. Mills, gardener to F. Lloyd, Esq., Coombe House, Croydon; second, T. R. Willis, Esq., 61, Avondale Road; third, Mr. J. Clements, gardener to R. Ryley, Esq., Hszlemere, Chichester Road, Croydon.

Twenty-four bunches of Sweet Peas, twelve varieties: First, G. Davidson, Esq., Elm Lodge, Quadrant Road, Thornton Heath; second, Mr. W. Lintott, gardener to Mr. W. Greenwell; third, Mr. M. E. Mills, gardener to F. Lloyd, Esq.

Twenty-four bunches, eight varieties: First, E. T. Baker, Esq., 63, Brigstock Road, Thornton Heath; second, W. Collins, Esq.; third, Mr. A. G. Mason, gardener to F. S. Rich, Esq.

ELTHAM ROSE AND HORTICULTURAL ASSOCIATION.

In the open classes for Roses the exhibits were not numerous, but some very fine blooms were shown.

In the class for forty-eight varieties (for which a cup value fifteen guineas and £1 in cash were offered), Messrs. R. Harkness and Co. of Hitchin secured first honours, with very fine blooms of sorts referred to in previous show reports; Messrs. G. Paul and Son of Cheshunt came second with good blooms, and Messrs. Burch Brothers of Peterborough third. In the class for twenty-four varieties, Messrs. Burch Brothers were first, and in this exhibit Marie Baumann was very fine, and was selected as the best bloom in the show; Messrs. G. Paul were second, and Messrs. Harkness third. Roses were also well shown in the amateur classes.

Sweet Peas were well shown by a good many exhibitors. Mr. C. Usher, gardener to C. K. Wild, Esq., was first in the class for six varieties for which a cup was offered; Mr. Usher also had by far the finest flowers in another class, but was disqualified through using Gypsophila with them. This same mistake has frequently been made by exhibitors. At the National Rose Society's show the best table was disqualified for the same reason. As the Gypsophila is used solely for garnishing, this ought to be admissible when grasses and other foliage are allowed.

In hardy flowers, Mr. H. Walker, gardener to H. P. Atkins, Esq., was first; Mr. Walker was also a successful exhibitor in several other classes. Table plants were well shown, Mr. Jeffrey, gardener to Mrs. Crundwell, taking first prize. He was also successful in several other plant classes. Mr. J. Boxall, gardener to A. J. Scrutton, Esq., was successful in the class for zonal Pelargoniums and others; Gloxinias were beautifully shown, Mr. Walker taking first prize, and Mr. W. H. Day, gardener to Rev. F. C. Bambridge Bell, second, with almost equally good plants. In Begonias, some large, well flowered plants were shown, Mr. H. Male, gardener to J. Rosselli, Esq., being first for both doubles and singles; Mr. J. Cooper, gardener to Mrs. Yeatman, also showed well in this class. Fuchsias were well shown by Mr. H. Male and Mr. Jeffrey. In the groups arranged for effect, Mr. W. Small, gardener to Major H. North, was first with a very pretty arrangement; Mr. T. E. Brown second. This exhibitor also showed other flowering and foliage plants well. In the class for three flowering and three foliage plants, Mr. W. Carr, gardener to E. Roberts, Esq., was first, three good Orchids being the flowering plants. Coleus were very good, Mr. G. Bamford, gardener to A. C. Latter, Esq., showed very brightly-coloured varieties.

Among specimen flowering plants, Rhynchospermum jasmnoides, Allamanda Hendersoni, Clerodendron Balfouri, and Plumbago capensis were good. Ferns were well shown, chiefly large specimens of Adiantums. Table arrangements, bouquets, &c., were good.

Fruit and vegetable classes were all well contested.

TRADE EXHIBITS.

Mr. G. Reuthe of Keston had an excellent collection of hardy flowers and rock plants; Mr. G. Willim, double and single Begonias; Messrs. Peed and Sons of Norwich, Gloxinia blooms; Messrs. J. Laing and Sons, Forest Hill, a group of miscellaneous plants.

There was a large and interesting display of cottagers' productions, and a very good attendance of visitors.

Mrs. Crundwell of the Moat kindly lent her beautiful grounds for the occasion, and the whole of the well kept garden was open to visitors.

EAST ANGLIAN HORTICULTURAL CLUB.

THERE was a good muster of members at the July meeting of this club, held on the 14th inst. at the Shire Hall Hotel, Norwich. An essay competition had been arranged for the evening, Messrs. Daniels Brothers, Limited, Norwich, offering good prizes. The subject was "The six best vegetables to grow, and how to grow them." Four members sent in papers, and the judges—Messrs. T. B. Field, Ashwellthorpe Hall Gardens, and W. Dennington of Catton, Norwich, a large market grower—who had, previous to the meeting, gone through the papers, gave their awards: The first to Mr. C. H. Fox, gardener to Sir E. Mansell, Bart., Old Catton; second to Mr. Henry Dobbie, gardener to E. Caley, Esq., Pine Banks, Thorpe; and third to Mr. C. Matthews, gardener to L. E. Willett, Esq., Thorpe St. Andrew. Mr. Fox selected Potatoes, Broccoli, Asparagus, Peas, Beans, and Brussels Sprouts, and ably dealt with their cultivation and a useful selection for maintaining a succession. Mr. Dobbie went for Brussels Sprouts, Broccoli, Asparagus, Peas, Beans, and Cauliflower, and dealt with the more scientific nature of the subject, especially the part relating to manures and soils. Mr. Matthews' selection was Potatoes, Peas, Beans, Cauliflowers, Onions, and Celery, adding some useful practical advice upon the cultivation of each subject. During the capital discussion which followed some useful hints upon vegetable culture were gained. Mr. F. Carrington, an amateur of Norwich, a most successful exhibitor of vegetables, gave useful advice. Mr. E. Peake and Mr. C. Hubbard, both head masters in elementary schools in Norwich, where they are doing splendid work in the school gardens, also joined in the debate. Mr. T. B. Field, speaking as one of the judges, remarked that the papers for originality

struck him as being some of the best brought before the club. He also said he was glad to have heard the remark upon the fallacy of deep planting of celery. The President (Mr. J. Powley), Messrs. J. C. Abel, C. Hines, W. Dennington, and others also took part in the discussion. Mr. Henry Dobbie brought up for inspection a varied assortment of herbaceous flowers and flowering shrubs, comprising Spiraea, Tulip Tree, English and Japanese Irides, and Lilies. Mr. Fox staged a massive bunch of seedling Delphiniums, some of which were very fine. These were from seed crossed and saved by himself. The challenge bowl presented by Mrs. Louis Tillett, Old Catton, proceeded a stage further, the section this month being for vegetables, points being awarded as follows: Mr. C. H. Hines, 22; Mr. C. Burtenshaw, 18; and Mr. D. Howlett, 14. The first of the series of competitions for the silver cup presented by Mrs. E. T. Boardman, Norwich, was also held, this being for six bunches of annuals. Here Mr. F. Carrington, the only exhibitor, secured 22 points. Some very fine Roses, both Hybrid Perpetuals and Teas, were shown by Mr. F. Williams, gardener to Mrs. Louis Tillett, Old Catton. Mr. W. Rush, gardener to F. P. Hinde, Esq., Thorpe, deserves mention for his effectively arranged bunch of Sweet Peas. Other good things were also staged.

PORTSMOUTH.

"ROSES and Specimen Plants," such was the announcement in large letters on the posters issued by the Clarence Parade Pier Company for their show on the 14th and 15th inst. Unfortunately there was not a single specimen plant in the show, the first prize of £12 falling to secure an entry. Roses were also a failure. Although good prizes were offered, only one exhibitor appeared in each class. We understand several nurserymen entered but did not put in an appearance. No doubt the warm weather of the previous week and the Windsor and other shows partly accounted for the non-success of this exhibition.

ROSES.

Mrs. Croft Murray of Ryde, Isle of Wight (gardener, Mr. G. Kent), was the only competitor in the classes for forty eight distinct blooms, twelve Hybrid Perpetuals, dark, twelve Hybrid Perpetuals, light, and twelve Teas, and was awarded first prize for each, with blooms of medium size but fresh and in good colour.

For eighteen bunches of garden Roses, W. H. Myers, Esq., M.P., Swanmore Park, Bishop Waltham (gardener, Mr. G. Ellwood), was the only competitor, and a very fine show they made, deservedly securing first prize; they were all good. In the local class for Roses there were three entries: First, Mr. Tullis, Southsea; second, Mr. W. Tregs, North End.

For ball bouquet, the first prize of 30s. was secured by Mr. E. Willis of Southampton, with a beautiful arrangement of Orchids and Lilies of the Valley; the same exhibitor securing first for a bridal bouquet of great elegance.

Hardy cut flowers were good, Mrs. Murray securing first and Mr. Myers second.

Table plants were also good, and very even in quality, Mr. Myers being first, Mr. Willis second, and Mrs. Hulsh third.

The extra exhibits not for competition included a well-arranged stand of Roses, exhibited by Mr. Ellwood, and Sweet Peas from Messrs. J. Agate and Co., Havant, and Peas, herbaceous blooms, &c., from Messrs. Fay and Son, Commercial Road, Landport, and Messrs. Burrige and Soos, London Road, Portsmouth.

MANCHESTER ROYAL BOTANICAL AND HORTICULTURAL SOCIETY.

A GOOD show, glorious weather, and a magnificent attendance may be a short description of this function, which was held in the large show annex of the society's gardens on the 16th inst. One will have to go back to the early eighties to remember such crowds of visitors. This must be especially cheering to the committee, who have for some time had to face bad times as regards the support they have received from their patrons. Exhibitors have continued to give their loyal support, but this is only one detail, and that not the most important towards success. The Roses have been seen better, although the darks were staged in splendid colour. The Sweet Peas increase yearly.

CUT ROSES.

For sixty distinct single trusses three lots were staged, the premier collection being from Messrs. A. Dickson and Sons, Newtownards, the cream being Helen Keller, Chas. Lefebvre, Mrs. R. G. Sharman Crawford, Marie Rady, Alice Lindsell, Florence Pemberton, Duchess de Morny, Her Majesty, Alfred Colomb, Frau Karl Druschki, Horace Vernet, Duchess of Bedford, Abel Carrière, Caroline Testout, Suzanne M. Rodocanachi, Beauty of Waltham, Lady Smiley, Harry Kirke, Etienne Levat, William Shean, Annie Wood, A. K. Williams, Alice Grshame, Comte Raimbault, Dr. Andry, M. Baumann, Comtesse de Nadaillac, Lady Dunleath, Countess of Rosebery, Marie van Houtte, Chas. J. Grahame, Captain Hayward, Helen Guillot, &c.; second, Messrs. R. Harkness and Co., Hitchin; third, King's Acre Nursery Company.

For thirty-six distinct, Messrs. Dickson again led with a fine all-round stand of fresh bright blooms; second, Mr. G. Prince, Oxford, with smaller but bright flowers; third, Mr. H. Drew, Longworth.

For twenty-four Teas or Noisettes, distinct, Mr. G. Prince led with a telling stand; second, Mr. H. Drew; third, Mr. J. Matlock, Oxford.

For twelve Teas or Noisettes, distinct, Mr. G. Prince first; Mr. J. Matlock and Messrs. A. Dickson second and third respectively.

For twelve single trusses, any white or yellow, Mr. G. Prince with White Maman Cochet, first; second, Mr. J. Matlock; third, Messrs. Dickson.

For twelve single trusses of any light colour, Messrs. A. Dickson and Sons were first with Helen Keller; Mr. G. Prince second with Maman Cochet, and Mr. R. Harkness third with Mildred Grant.

For twelve single trusses, any crimson, Messrs. A. Dickson and Sons with brilliant Horace Vernet, King's Acre Nursery Company with A. K. Williams, and Mr. H. Drew with the same variety were the prize winners.

For twenty-four distinct varieties, amateurs, the Rev. J. H. Pemberton, Havering-atte-Bower, had the premier collection; second, Mr. R. Park, Bedale; third, Mr. E. B. Lindsell.

For twelve varieties, distinct: First, Mr. W. Boyes, with medium fresh blooms; second, Mr. E. B. Lindsell; the remaining prize Mr. R. Park.

For eighteen Teas or Noisettes, Mr. R. Foley Hobbs was first, Mr. R. Park second.

For twelve varieties, distinct, the prize takers were Messrs. R. Foley Hobbs, R. Park, and W. Boyes in the order named.

For twelve single trusses, any crimson variety, the awards went to Mr. E. B. Lindsell with A. K. Williams, the Rev. J. H. Pemberton the same variety, and Mr. H. V. Machin with Ulrich Brunner.

Twelve single trusses, any white or yellow, the prize winners were Mr. E. B. Lindsell with White Maman Cochet, the Rev. J. H. Pemberton with the same variety.

For twelve single trusses of any light, the winners proved to be Messrs. R. Foley Hobbs, R. Park, and E. B. Lindsell in the order named.

Local prize winners for twelve varieties were Messrs. C. Burgess, R. Hall, and J. A. Twedale; for six varieties, Messrs. C. Burgess, R. Hall, and S. Hurdern.

For buttonhole Roses, open, not less than six varieties, Mr. J. Matlock led with beautiful types of Lady Battersea, Anna Olivier, Meta, Souv. de Mme. Robinson, Papa Gontier, Souv. de Catherine Guillot; Mr. G. Prince second with pretty Francois Dabreuil, Marquess of Salisbury, and Papillon.

For a display of Roses, open, Mr. J. Matlock had a brilliant show; second, Mr. G. Prince with a good lot.

For a basket of pink blooms: Mr. O. Robinson second.

For a bouquet of Roses, amateurs, the winners were Messrs. O. Robinson and J. Matlock.

In the open class Mr. H. D. Golden was the winner.

Silver medals were awarded to the Rev. J. H. Pemberton for the best Tea or Noisette in the show for a very fine Maman Cochet, and to Messrs. A. Dickson and Sons for the best Hybrid Perpetual or Hybrid Tea for a well-formed bloom of Bessie Brown.

SWEET PEAS.

The society's silver medal was awarded to Mr. J. Derbyshire for the best collection, which consisted of over 100 bunches. Especially good were Mrs. H. P. Addleshaw, Dorothy Derbyshire, Mrs. Duggan, Marchioness of Cholmondeley, Mrs. Knight Smith, and a seedling of pale salmon.

For the best collection, not less than twenty-five varieties, Mr. E. Royle, gardener to F. Smith, Esq., won with a good lot; Mr. W. Hampson second, and Mr. W. Shuttlewood, gardener to J. A. Twedale, Esq., third.

NORTH LONSDALE ROSE SHOW.

THIS popular show was held on the 15th inst. in Todbusk Park, Ulverston, by the kindness of F. J. Crossfield, J.P. The competition in the leading classes was not as keen as the committee would wish. Unfortunately, rain fell continuously throughout the day. To counteract the usual heated atmosphere the committee placed huge blocks of ice, weighing two tons, down the centre of the tent.

ROSES.

For seventy-two single trusses Messrs. A. Dickson and Sons, Newtownards, secured the premier award with large bright blooms, the best being Mrs. R. G. Crawford, Marie Rady, Her Majesty, Florence Pemberton, Suzanne Marie Rodocanachi, Mona, Star of Waltham, Marchioness of Londonderry, Mrs. D. J. Jardin, Annie Wood, Frau Karl Druschki, Earl of Dufferin, Mildred Grant, Duchesse de Morny, Leinster, Gustave Piganeau, Duchess of Westminster, La France, Lady Clanmorris, Erin, Mrs. G. R. Sharrman Crawford, Eric, Helen Keller, Mrs. W. J. Grant, Dean Hole, Marie Baumann, Louis van Houtte, Lady Dunleath, Marquise Litta, George Dickson, Miss Nina Dickson, Kaiserin Augusta Victoria, A. K. Williams, Mrs. David McKee, Dr. Andry, Mrs. Conway Jones, Dupuy Jamin, Duchess of Portland, Charles J. Grahame, Duke of Wellington, and a Horace Vernet of fine form and colour. This secured the bronze medal for the finest Rose in the show.

Sixteen trebles, distinct: The same exhibitor was again to the fore with some capital blooms; second, Mr. H. V. Machin, with smaller but smart blooms.

For thirty-six distinct trusses, Messrs. Dickson were again first with telling blooms.

For eighteen distinct, six dark, six light, and six Teas, Messrs. Dickson still held the leading position; Mr. H. V. Machin secured second.

For twelve Teas or Noisettes, distinct, single trusses, Messrs. Dickson again took first honours.

For twelve blooms of any white Rose the Irish firm scored with a good box of Bessie Brown, and for the darks with solid blooms of Alfred Colomb; Mr. H. V. Machin second with Ulrich Brunner.

For twelve new Roses, distinct, Messrs. Dickson were also first, having for the best Tea in the show, Mrs. Myles Kennedy, and for the best new seedling, winning with the same bloom.

Twelve blooms of any Tea or Noisette, Messrs. Dickson were again the premier.

AMATEURS.

For the Gold Challenge Cup, twelve distinct varieties, R. L. Garnett, Esq., secured the award with good blooms, including Bob Davison, which gained the bronze medal for the best dark bloom in amateur classes, and similar award for best light with Mrs. E. Mawley; second, Dr. Tidswell; third, Rev. R. T. Langtree. Silver Challenge Cup for twelve Hybrid Teas, distinct, the same exhibitor again scored, securing bronze medals for the best light and dark in this section.

Eighteen Roses, distinct, the same exhibitor won with nice even blooms; second, Dr. Cambell Hall; third, Mr. H. V. Machin.

Twelve Roses, four distinct varieties, three Blooms of each: Mr. Garnet again held his own, Mr. H. V. Machin following.

Six blooms of any one dark H.P. or H.T.: The Rev. R. T. Langtree scored, and for the best six lights Mr. Garnet won with Frau Karl Bruschki.

Nine Teas or Noisettes: The Rev. R. T. Langtree held his own.

The local classes were all filled. For the Ulverston Urban District Council Challenge Cup for nine trusses, Mr. F. J. Harrison held the position of merit, gaining cup and medal.

For the Mrs. Myles Kennedy Challenge Cup for six Teas or Noisettes the previous winner sustained his reputation. Other winners were Messrs. F. M. Hodson, T. H. Heyes, J. H. Boulds, &c.

SWEET PEAS.

These were staged in quantity, and added greatly to the success of the exhibition. For the J. Towers Settle Challenge Trophy for twenty-four distinct varieties, Messrs. Mackereth staged the premier collection, having flowers of good substance and fine colouring; second and third, Messrs. R. Bolton and F. S. Wrightson.

For eighteen bunches, distinct, Miss P. Nash took the leading award.

For the six and nine varieties Mrs. Atkinson won in each class.

For the J. Towers Settle Challenge Cup and silver medal Mr. T. Proctor secured the coveted award; second, Mr. G. Barrow.

HERBACEOUS CUT FLOWERS.

For twenty-four bunches, distinct, Mr. R. L. Garnet won with a very handsome collection tastefully arranged.

For Stocks, which were very fine, many of the spikes being superb, the first awards went to Messrs. Joshua Sharp and J. G. Martin and Mrs. Atkinson.

Amongst the numerous exhibits not staged for competition were eighty bunches of Sweet Peas and a good collection of herbaceous cut flowers from Mr. R. Bolton, Carnforth. A good collection of cut flowers, including Delphiniums, Gaillardias, Alstromerias, Irises, Lilioms, bouquets, wreaths, &c., came from Mr. W. Shand, Lancaster.

Messrs. Mawson Brothers showed cut flowers.

BATH ROSE SHOW.

CHIEF interest centred in the competition for the Jubilee trophies. There were only four lots of thirty-six blooms staged by the professional growers—Messrs. Harkness of Hitchin, Messrs. Alexander Dickson of Newtownards, Messrs. Cooling and Sons of Bath, and the King's Acre Nurseries, Hereford. The prizes went in the order in which the names are given, the King's Acre Nurseries being unplaced. Messrs. Harkness staged an even box of splendid blooms. A remarkable feature of their collection was that side by side were found in it the two best Roses in the show, as adjudged to be worthy of the National Society's medals for the best Hybrid Perpetual and for the best Tea or Noisette. The Hybrid Perpetual was a perfect example of the crimson Fisher Holmes, and the Tea was a superb White Maman Cochet. The amateurs' class for their corresponding trophy numbered six entries, and Mr. E. B. Liosdell of Hitchin is rightly to be regarded as the champion of the season, Mr. R. Foley Hobbs of Thornloe, Worcester, coming second, and Mr. W. Boyes of Derby, third. Mr. Hill Gray of Beaulieu carried off some good prizes, and gained the medal for the best Tea or Noisette among the amateurs for a bloom of Maman Cochet. The best Hybrid Perpetual among the amateurs' collection was Her Majesty, staged in Mr. Foley Hobbs' collection. The big nurserymen's class for seventy-two distinct varieties was won by Messrs. Alexander Dickson, Newtownards, but the King's Acre Nurseries, Hereford, were the only other competing firm. Mr. Hill Gray won the open class for twelve single trusses of any Rose with an even exhibit of White Maman Cochet, and the King's Acre Nurseries were second with a very choice box of Her Majesty. The best crimson Rose was A. K. Williams, from the King's Acre Nurseries, Ulrich Brunner being second, while Kaiserin Augusta Victoria (Mr. G. Prince of Oxford) was the best of the yellows. The decorative and garden Roses were better than might have been expected, but here and there was detected evidence of the waning of the season.

WOODBIDGE HORTICULTURAL SOCIETY.

The annual show of the above well-known old society—the leading horticultural institution in East Anglia—was held on the 14th inst. in the delightful grounds of The Grange, a splendid spot, though a little distance from the railway station, and the show was excellent in almost every department, the only sign of weakness being in the forced fruits. The energetic secretary, Mr. John Andrews, and his committee deserve all praise for their excellent management and for such a charming exhibition, which for many miles round is looked upon as a red-letter day in Suffolk. A stranger at first sight would think Royalty were present, the town being beautifully decorated. It is, indeed, a pleasure to note such success from a horticultural point of view, as the society has passed its jubilee and is as vigorous now as at any time in its history.

ROSES

were a special feature. The Rose tent at Woodbridge alone is well worth a visit, and though doubtless, owing to the heat and the season being well advanced, the exhibits were a little less numerous, the quality was excellent. Messrs. B. R. Cant took the 25-guinea cup for the fourth time, thus becoming the owners, staging thirty-six grand blooms, the other exhibitors being Messrs. Frank Cant second, and Messrs. Prior and Son, Colchester, third. For twenty-four distinct varieties Messrs. Prior were a good first, Messrs. B. R. Cant second, and Messrs. F. Cant third. The same

exhibitors in the order named were successful for the single truss of Teas, and in garden Roses or decorative sorts Messrs. F. Cant led, and for Briars also, Mr. W. E. Long, Saxmundham, being a good second.

In the amateurs' classes some splendid blooms were staged, in the Teas the Rev. A. Foster Melliar, Ipswich, being first, and Mr. Steward second. For Twelves, Mr. Foster Melliar was again first, but closely pressed by Mr. O. G. Orpen, Colchester. In the smaller classes the same exhibitors were most successful, Captain C. S. Schriber being also a leading exhibitor.

Carnations were good and largely shown, and the hardy flower class of perennials and herbaceous plants was very fine, Mr. R. C. Notcutt, having a splendid collection, being a good first, with Mr. C. Jacobi second. For perennials, the Hon. W. Lowther was first. For the medal competition Colonel Rous was first; Mr. H. Egerton Green second.

There was a great competition in the Sweet Pea class, Messrs. Johnson, Dr. Cooke, and Messrs. King and Co. being the winners in the large class, Messrs. Long, Johnson, and Burness in the smaller ones; and for Messrs. Eckford's prizes Sir R. Farren, Mr. J. Wood, and Mr. Gall scored in the order named. For stove or greenhouse blooms, the Hon. W. Lowther was a good first, and Mr. Egerton Green second.

The tent for dinner-tables and decorations was a great feature, and there was no lack of competition, though owing to the great heat the lady exhibitors had a trying time. Mrs. Gaffney, Melton, was first for subscribers in the Suffolk district, Miss F. M. Carthew being second, and Miss M. Snell third. For the most tastefully arranged dinner-table (open class) Mrs. Orpen, Colchester, was a good first, with a beautifully arranged table, and in a very strong competition; Miss Brooks, Ipswich, second.

For the best arranged luncheon table Miss Barber, Woodbridge, was first, followed by Miss H. K. Ackers, Colchester, and Miss Fiske, Woodbridge. In the smaller dinner-table competition, Mrs. Hayward, Miss E. M. Kemp, and Miss Minter were the leading exhibitors.

Plants, though not a leading feature as far as large specimens go, were interesting. The best collection came from Mr. J. A. Burgess. The best miscellaneous group was from Mrs. T. Carthew.

For a group of Crotous and Cannas Mr. J. A. Burgess was first.

FRUIT.

There was no lack of hardy fruit and of the best quality. For the best collection of dessert, eight dishes, the competition was weak, but the first prize lot was excellent, Lord Rendlesham having excellent Peaches, Nectarines, Grapes, and Melons; Colonel Rous, Worcester, second. The Hon. W. Lowther had the best Grapes, white and black; Earl Stradbroke second. Lady North had the best white Grapes, Colonel Rous second, and Major Howey third. For the best single black, the Hon. W. Lowther was first, and Mr. Burness second. The heaviest Grapes came from Mr. Lindsay Scott, who was first; Mr. Burness second.

For Peaches, Mr. Burness first and the Hon. W. Lowther second. For Nectarines Lady North was first. Small fruits were a special feature; there was a great quantity of Gooseberries, Strawberries, and Currants. The best lots of Strawberries came from Major Howey, Mr. Scott, and Mr. Long; for flavour from Mr. Stevenson, Lord Rendlesham, and Mr. Long. White Currants were splendid, and in the trade class there were some fine exhibits from Mr. Notcutt, who secured the gold medal.

Vegetables were extensive and good in quality. Potatoes were grand. For the Notcutt prize the Hon. W. Lowther was first and Mr. Burness second. For Messrs. Sutton's prizes the Hon. W. Lowther was first and Mr. Burness second. For Messrs. Daniel's prizes the same exhibitors, and for Messrs. King's Mr. Wood was first. There was a large number of small classes all well contested.

NOTES FROM THE MARKETS.

SHIRLEY POPPIES.—Growers of experience who take up any class of plants either for pots or for cutting are careful to start with the best procurable, and there is good evidence of this in the Shirley Poppies now seen in the markets. Iceland Poppies have been plentiful for a long time and have sold well.

Malmaison Carnations.—These are now more plentiful, but the best blooms of the deep pink variety still maintain a good price. Those who take up the culture of these popular Carnations will do well to remember that, while other shades of colour may sell fairly well, it is the deep pink of the Princess of Wales type for which there is the greatest demand. There may be others under different names which are equally good; yet, from what I have seen in nurseries where they are grown extensively, it will be quite safe to depend on the true stock of the Princess of Wales, either for trade or private use.

Border Carnations are now coming in plentifully, but it is as well to note that the flowers of these, or, rather, most of them, do not stand up well. And when flowers can be used with stems to

tand up well without the aid of wires there is a great saving of time, besides which, those standing up naturally are far more elegant. We are now getting some English varieties with better stems, but they do not yet quite come up to the Americans. But what I would point out is that, instead of depending on the ordinary border varieties, growers would do well to propagate later batches, or keep older plants stopped for later spring flowering.

A. H.

OBITUARY.

MR. JOHN JEFFERIES.

WE record with much regret the death, which took place early on Friday of last week, after a few weeks' illness, at Minerva Villas, The Avenue, Cirencester, of Mr. John Jefferies, the senior partner of the firm of Messrs. Jefferies and Son. Mr. Jefferies, who had reached the ripe age of eighty-six years, was one of the leading horticulturists and nurserymen of his day. Born at Somerford Keynes, in the neighbouring county of Wilts, he became, when quite a young man, manager to the late Mr. Gregory, seedsman and nurseryman, of Cirencester, whose father established the business more than a century ago. In 1850 Mr. Jefferies acquired the business from Mr. Gregory. At that time the nurseries were far different to what they are now, and included a large area between Victoria Road and Watermoor Road, held of the Abbey Estate, and now built over, and also a considerable extent of ground including what is now the garden of Cirencester House and surrounding land. When occupation of this land was resumed by a former Earl Bathurst, and when the nursery property belonging to the Abbey Estate was sold for building purposes, Mr. Jefferies purchased what afterwards became the Tower Street Nursery, and established extensive nurseries at Somerford Keynes, Siddington, Watermoor, and London Road. Joined and aided by his sons, the business rapidly extended, till it became one of the foremost firms in the kingdom, its reputation for the growth of forest and ornamental trees, the celebrated Cotswold Roses, and other specialities, being high and widespread. Twelve years ago, Mr. Jefferies retired from active business, and his eldest son, Mr. William John Jefferies, to whose energy and ability the success of the establishment was largely due, continued the firm under its old style of "John Jefferies and Son." The opening up and planting of The Avenue as a pleasant through thoroughfare to Watermoor Road was primarily due to Mr. Jefferies' liberality and public spirit.

A correspondent who knew Mr. Jefferies well writes: "Few men knew hardy plants and trees better than Mr. Jefferies, especially so was this the case with hardy flowers. Mr. Jefferies had a very refined taste, and no one knew better than he did when a new plant came into his nursery whether it was going to please the general public or not. He had no patience with big lumpy flowers. I will remember how disgusted he was with the mop-headed Chrysanthemums when they first became popular, especially with the Etoile de Lyon type. Of florists' flowers he was a good judge."

The National Sweet Pea Society held their fourth annual exhibition at the Crystal Palace on Wednesday and Thursday last, and a splendid display resulted. Most of the classes were well contested, and there were numerous non-competitive groups also. Mr. A. G. Hayman, Hopsford House, Frome, won the first prize for nineteen varieties in the special audit class; Messrs. Isaac House and Son, Bristol, were first in the classification class for nineteen sorts, and this firm also was first for thirty-six bunches, distinct varieties. Mr. Henry Eckford exhibited a beautiful new and distinct Sweet Pea called Henry Eckford, whose colour may be described as salmon-orange. We shall give a fuller account of the exhibition next week.



THE GARDEN

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HYBRID AQUILEGIAS.

MANY groups of hardy garden flowers have undergone much improvement in the hands of the hybridist and selector, and this is conspicuously shown amongst the hybrid Aquilegias or Columbines, which have won the love of all good gardeners for the beauty of their colouring and their graceful form. These thoughts are brought to mind by a few notes from an earnest amateur who has grown the finest varieties for many years. It is the spurred race we most admire, in which the flowers are light and graceful, and have a spur which seems to make everything in proportion, the spurless varieties having a roundness and solidity not free from a certain unwelcome coarseness. Unfortunately, our experience—and we are not alone in this—is that the hybrids are short-lived, the flowers haste away, and the plants too, unless in a soil that is exactly suitable. So many grow the hybrid Columbines that the experience of others will be of advantage to those who wish for the best strains, as the nurseryman usually describes a careful selection of the best colours. The notes to which we refer are as follows :

“*Aquilegia vulgaris* will generally take care of itself in the garden, but, unfortunately, it is not so with most of the hybrids. All will grow in shady places like true alpine, but as a rule they must have a light soil if they are to last more than two seasons. They rarely make fine plants on wet, heavy soils, and a damp season seems more fatal to them than a severe one. Given a light soil, especially if it is a sandy one and not too dry, many of them will last for years. If the soil is heavy the best thing to do is to give a liberal supply of leaf-mould with it to a depth of at least 1 foot, so that the soil does not become too close.

“The old-fashioned Aquilegias are essentially spring flowers, but the hybrids are in bloom most of June and July, unless the season is a very hot and dry one. Whatever the soil, it is a good plan to raise a fresh stock of plants every two or three years, so that there may be always a supply in their prime, which is in their second and third years.

“Seed should be sown early in the spring, preferably in heat in February or early March, and the best seed to get is a packet of mixed hybrids. It should be sown very thinly, so that the plants may develop well before being

pricked out, as they are very fragile when young. By the end of April or beginning of May they should be pricked out in a somewhat shady position, where the soil has been well prepared by the addition of leaf-mould and road sand unless it is a very light one. This pricking out should be done in damp weather if possible, and the plants need shading and watering if the weather is hot before they are established. If it is a nursery bed only, they may be put in 4 inches apart, but if it is intended that they should flower there, they should be 6 inches apart, and every alternate plant should be taken out after the first season's flowering for planting in other parts of the garden. It will be observed that the young plants are of very different constitutions, some rapidly becoming strong, while others remain weak. It is the latter which will probably turn out to be some of the most delicate and beautiful varieties, and they need to have the best culture possible, and are well worth it. The hybrids will exhibit certain characteristics of some members of their mixed ancestry, and one of these is extreme capriciousness. I have heard that *A. glandulosa* will grow like a weed in certain parts of Scotland, while in most gardens in England it is delicate and short-lived. Some of the species are not true perennials, and hence some of the hybrids are of very doubtful perennial character. Consequently, if a bed is made of them a good reserve of plants should be kept for filling the places of those which die off, as well as those which, though continuing to live, do no good. The planting of Aquilegias in their permanent positions should always be done in October, as they start growing early in the spring, and some should be put in sunny positions and some in shady ones to get a prolongation of the flowering season. Care should be taken in the summer that after they have done flowering they do not get smothered by the summer flowers, as this is almost certain destruction to them. They should make nice tufts of healthy foliage in the late summer to strengthen the plants for the following season's growth, and they will not do this properly unless they have plenty of air.

“Hybrid Aquilegias make very fine button-holes, and nothing goes better with the flower than its own delicately-cut foliage—so much finer than that of *A. vulgaris*. Both, however, quickly flag, and a water-holder is an advantage, almost a necessity. For table decoration they are unsurpassed, and I have more than

once seen prizes at flower shows taken by floral arrangements of which these hybrids formed a considerable part.”

THE GENTIANAS.

GENTIUS, King of Illyricum, the eastern boundary of the Adriatic, was taken prisoner by the Romans about a century and a half before the Christian era for encouraging pirates, and died in custody. He discovered that a certain plant was a very good tonic, and that plant has ever since been called *Gentiana*, after him. This plant is generally supposed to have been the tall, coarse alpine, common in mountainous districts in Central Europe, and known to botanists as *G. lutea*, a preparation of which is still in high repute as a medicine. The Roman naturalist, Pliny, however, tells us that the *Gentian* has leaves like an Ash tree, and Dioscorides, who wrote a Greek work on medicinal plants about the same time, says it has leaves like a Walnut tree. These statements are not true of the yellow *Gentian*, but both Pliny and Dioscorides described many plants about which they knew little or nothing, and, in spite of their statements, it is probable that this type of the genus is the plant originally named after King Gentius.

The genus *Gentiana* is a very large one. The names and synonyms of the species occupy nearly twelve columns of fifty names each in “*Index Kewensis*,” and perhaps there are over 200 good species known to botany. But the number of these in common cultivation is comparatively very small, and when we consider the vast interval in stature and habit between *G. lutea*, the type, and such dwarfs as *G. verna* or *G. nivalis*, it is at once obvious that the genus cannot be discussed collectively, but that each species must be dealt with separately. It can hardly be claimed that more than five species are in common cultivation in English gardens.

G. lutea is not very often seen, probably because it is not very attractive as an ornament, and not because there is anything difficult in its treatment, as it will grow in any strong and well-drained soil, and continue healthy without attention for many years. It grows more than 3 feet high, with stout Plantain-shaped leaves and four or five close whorls of flowers of a dull yellow colour. It cannot be divided or transplanted when old, and must be raised from seed, which it ripens abundantly.

G. acaulis, the common *Gentianella*, is known to everybody, but cannot be grown successfully in every garden; yet those fortunate people in whose gardens it grows well without difficulty are apt to look with pity, not without some contempt, on others who cannot grow what seems to themselves so easy a plant. And yet they cannot tell the reason why their friends fail, and cannot teach them how to succeed. *Gentianella* is an excellent test of a good and

well-drained garden soil, and where the sub-soil is cold and wet, and the atmosphere tainted with stagnant damp evaporating from the ground, this mountain plant is one of the first to show the unfavourable conditions, which little can be done to remedy.

G. verna requires made soil to a depth of a foot or more, and even with that there are few gardens in which it will last more than four or five years without being renewed from seed or from the nursery. It wants well watering in dry weather through summer, and warm, wet winters are unfavourable to it. In many of its native places it is probably frozen every night whilst in flower. The seedlings should be planted in trays, and the contents of the tray, when two or three years old, turned out entire in spring into the place they are to occupy permanently. If planted out in autumn the frosts of winter push the plants out of the ground.

G. asclepiadea is very robust. It is better to raise it from seed than to divide old plants, which take long to recover, and do better when left alone, growing in sheltered and well-drained borders 2 feet high and as much across. There is a variety with dingy white flowers, growing stronger than the type but less ornamental.

G. septemfida is the most easily cultivated species except in dry, sandy soils. The name, which means seven clefts, has been explained as referring to the scales between the divisions of the corolla, which are fimbriated, and may sometimes be found to have seven points; others allege that it is because the flowers in a cluster are often even in number, but these are poor apologies for an inept name.

It is evident to anyone who reads the description of the plant given by the German botanist Pallas, who discovered it more than a century ago, that the specimen from which he took his characters was abnormal, having seven divisions in the corolla instead of the usual five. The words of Pallas are: "Corollis septemfidis quinquefidis que laciniis intercalariibus ciliatis" (having the inserted scales fringed). The plant is figured in the *Botanical Magazine*, t. 1229 (A.D. 1810), and Sims, who wrote the letterpress for that volume, rightly says that the corolla is divided "for the most part into five, sometimes six, rarely seven, laciniæ." This desirable species ripens seed plentifully, but grows slowly and lives for many years. The height varies from 3 inches or 4 inches to 18 inches. A dwarf strain may easily be obtained, as the seedlings follow the stature of the parents, and the low growth is neater than the taller. By the late C. WOLLEY-DON.

NOTES OF THE WEEK.

FORTHCOMING EVENTS

August 1.—Lichfield, Grantham, Crediton, Atherstone, and Ilkeston Horticultural Shows.

August 2.—Mansfield and Leicester (two days) Flower Shows.

August 9.—Royal Horticultural Society's Meeting in New Hall, Vincent Square, Westminster.

August 10.—Royal Botanic Society's Annual Meeting; Ventnor, Sevenoaks, and Bishop's Stortford Flower Shows.

August 11.—Taunton Deane Horticultural Show.

August 13.—Sheffield Horticultural Show.

August 16.—Exmouth (two days) and Clay Cross Horticultural Shows.

August 17.—Shrewsbury Floral Fête (two days); Tynemouth (two days) and Calne Horticultural Shows.

August 19.—Devon and Exeter Horticultural Show.

Royal Horticultural Society of Ireland.—The monthly meeting of the Council of the Royal Horticultural Society of Ireland took place at the offices, Molesworth Street. There were present Mr. F. W. Moore, presiding; also Messrs. James Robertson, J.P., George Ross, J. M'Kellar, William Dick, H. P. Goodbody, Captain Riall, D.L., Rev. F. C. Hayes, and Mr. H. A. Smallman. Various arrangements were made in connexion with the August show, which is to take the form of a garden fête, and, by kind permission of the president, Lord Ardilaun, is to be held in St. Anne's, Clontarf, on Wednesday, August 10. The house and gardens will be thrown open to visitors to the fête without extra charge, and a military band will be in attendance. Prizes to the value of £130 will be offered for competition. The fête will be open from 1.30 p.m. to 7 p.m., the prices of admission being, 1.30 p.m. to 5 p.m., 2s. (1s. 6d. if the tickets are purchased before August 10), and 5 p.m. to 7 p.m., 1s. The Clontarf and Howth trams go near to the entrance to St. Anne's on the sea road. It is, therefore, hoped that the public will take advantage of the great attractions offered.

Roses at Canonbie, N.B.—The annual Rose show at Canonbie, N.B., was held on the 16th inst., and was one of the best yet held by the society. The blooms were generally of superior quality, and the large proportion of the prizes were creditably won by Mr. T. Pride, Canonbie School House. The twelve blooms of Hybrid Perpetuals with which he won the prize in that class were very fine. Mr. Pride had six first prizes, besides several others. His strongest competitor was Mr. R. M. Elliot, Knittyholm. A capital non-competitive exhibit sent by Messrs. Palmer and Son, Limited, Rose growers, Annan, was much admired. The show was well managed by a competent committee.

Bowdon Amateur Horticultural Club.—The first summer meeting and exhibition of the above club was held at Sandiway House, Altrincham, on Tuesday, the 19th inst., and from every point of view may be regarded as a complete success. A large number of members exhibited at the meeting, the exhibits filling two rooms as well as a large portion of an adjoining hall. Considerable enthusiasm prevailed among the competitors, and many exhibits were excellent. We were especially interested in the Roses and Lilies from Mr. Alfred Jordan, Arncliffe, Bowdon, who, gaining the maximum of points, secured the certificate of merit awarded by the club. Rose Caroline Testout in this exhibit would have done credit to any exhibition. Some splendid blooms of the same variety formed part of the exhibit from Mr. J. R. Ward, Chaseley, Altrincham, who had some very fine *Lilium candidum*. The Delphiniums, Roses, and other hardy flowers from Dr. Moir, Hale Bank, Hale, were quite a notable lot, evidencing good cultivation. Mrs. Duggan, The Downs, Altrincham, who, by the way, is honorary secretary, contributed quite a charming variety of things, from large vases filled with *Lilium pardalinum*, *L. excelsum*, and *Bocconia cordata* to smaller vases of *Dianthus hybridus* Napoleon III., the pretty pink-flowered hybrid *Dianthus Eugenie*, and other things. The Tufted Pansies were beautifully fresh; indeed, freshness in the majority of the exhibits was noticeable, with good arrangement generally. It is worthy of note that no prizes were offered. The prevailing enthusiasm afforded good proof of the pleasure derived by this meeting in friendly rivalry. At 6 p.m. Mr. E. H. Jenkins, Hampton Hill, read a paper in the lecture-room entitled "Hardy Plants: Their Propagation and Cultivation." The subject was treated in an authoritative manner, and was well received by the large and enthusiastic gathering of members present.

Nursery changes.—For many years the nursery founded by the late Mr. J. W. Wimsett, and since his death carried on by his son, has, with its neat glass structures, ornamental shrubs, and delightful summer bedding, formed a most attractive feature in the King's Road, Chelsea, and has been a source of great attraction to passers-by, for such a display is rare within London. Unfortunately, we are to lose this little oasis, for a large notice has been erected thereon, conveying the information that the land is to be sold by auction

in the autumn, when we shall probably see the last of it as a nursery, for it is no doubt destined to be covered with bricks and mortar at no very remote date. Chelsea, so long celebrated for its nurseries, is thus losing them one by one, for it was not many years ago that Mr. William Bull disposed of his supplementary nursery in the Aeshburnham Road, and since then Messrs. Veitch have considerably reduced the extent of their Chelsea establishment, and a portion has been acquired by the County Council. The offices and headquarters, however, remain at Chelsea, and the lessened glass area is compensated for over and over again by the new nursery at Feltham. Furthermore, the associations of the old nursery are not to be entirely lost, for the name of the new street that runs through it is Hortensia Road.—H. P.

School gardening.—It is several years now since this subject was first introduced into the elementary schools of Norwich, Mr. C. Hubbard promoting practical gardening in the large piece of land attached to the Nelson Street Schools. Mr. Edward Peake, head master of the Crook's Place Boys' School, situated in a congested district but somewhat near the Public Park, Chapel Field, being devoted to flowers, decided to strike out on the same line. Through great perseverance he managed to secure as his school garden a strip of land in the Chapel Field, and by dint of much care and teaching of the boys this is now a credit to the neighbourhood. The plants are all clearly labelled and tended by the boys, so as to infuse into them a love for flowers and gardening. This year, after the planting season, what few plants and seeds were over were distributed amongst the boys to take home to cultivate, with the idea of exhibiting the full-grown plants later on. This exhibition took place on the 20th inst., and was most interesting. Several prominent citizens and members of the Education Committee visited the gardens during the exhibition and expressed their pleasure at the results of Mr. Peake's labours.

Galega Hartlandi.—This plant, with its abundance of racemes of pretty mauve and white flowers, has been a picture for several weeks, and still is making a brave show. It is an ideal plant for the herbaceous border, but it wants plenty of room, as it increases very quickly. One or two plants planted two seasons ago are now quite large bushes, and soon will need dividing. A correspondent recently mentioned the *Galega* as useful for cutting, but I find that the flowers quickly drop when the shoots are cut and placed in water. This *Galega* (whose origin seems somewhat uncertain) certainly deserves extended culture, for it is so easy to grow and yields such a wealth of flowers. Perhaps Mr. Hartland, who sent it out, could tell something of its origin. It is not at all fastidious as to soil, for it seems to do well in the poorest border; in fact, in a good soil it is almost too rampant, and is liable to smother other good but less vigorous plants. It flowers more freely, too, when the soil is not very rich.—H. A. P.

Campanula isophylla alba and C. Mayi.—These pretty bell-flowers are now coming into the market. For hanging in a window in a pot no plant succeeds so well. It was through being seen in cottage windows that the white variety was first taken up by growers for market. It is not only as a window plant that it is useful—it will continue flowering in the conservatory for a long period. For wall gardens both the white and blue may be specially recommended. They may not be quite hardy, but they will live through the winter with a slight protection, or young plants kept in a cold pit through the winter and planted out early will make a good show the same season.—A. H.

Rose Mme. d'Arbly.—From Westons-birt Rectory, Tetbury, Gloucestershire, the Rev. David Kiteat, sends a photograph of the gable end of the rectory, which is covered with a splendid plant of Rose Mme. d'Arbly, planted some thirty years ago. He says: "It has this season thrown out the mass of bloom shown in the photograph. The Rose intermingles with Honeysuckle and Virginian Creeper. Possibly its profusion of flowers this season is partly owing to the wet season last year."

The New Zealand Flax (*Phormium tenax*) in Kirkcudbrightshire.—Those who doubt the hardiness of *Phormium tenax* in many parts of the country will be interested to know of the fine plants in the gardens of Captain Hope, at St. Mary's Isle, Kirkcudbrightshire, N.B. They are grown in the open without protection and flower annually. One specially good clump is about 12 feet high and at least 7 feet in diameter. It has seven spikes. I know the *Phormium* in several other Kirkcudbrightshire gardens, but I do not think that there is at present a finer one in the county than that at St. Mary's Isle.—S. ARNOTT.

Rose Ulrich Brunner as a standard.—What a splendid Rose this is for a standard! It grows freely and flowers profusely, producing large bold blooms. Recently, in the garden of Comte de Mauny Talvande at Terrick, I saw a very fine standard plant of this Rose bearing numerous blooms, and all large and of good colouring. Clio, Baroness Rothschild, and Mrs. John Laing, too, had made splendid standards, although all of them were only planted last year. Reine Marie Henriette as a pillar Rose, I think, is not often seen, but at Terrick it does splendidly when thus grown. The vigorous shoots flower freely, and when the blooms are at their best they make a lovely picture. Mrs. John Laing is a favourite Rose at Terrick, and hundreds of them are grown. There are large beds planted with this variety alone, and they make a wonderful show when the blooms are at their best. The climbing *Polyantha* Queen Alexandra, Blush Rambler, Waltham Rambler, Dorothy Perkins, and William Allen Richardson are all doing well here as pillar Roses.—H. P. A.

Sedum spurium.—What a bright and useful plant this is! It grows in the poorest of soil, and almost where there is no soil at all, and flowers abundantly. For a hot, dry place it would be difficult to find a July flowering hardy plant to beat it. The flowers are reddish pink, very numerous, and borne in short, umbellate cymes. There is a form with white flowers also, but these are rather a dirty white, and consequently in a mass are not so attractive. In Mr. Perry's nursery at Winchmore Hill there are large groups

of this *Sedum*. In some cases the plants have spread and covered the path edges, making a delightful feature. I recently saw it quite at home also on a hot, dry bank by the side of some stone steps with little soil to grow in. It quickly spreads and forms a pretty carpet of colour at this time of year. In the "Kew Hand List of Hardy Plants" the specific name *spurium* is kept up, while Nicholson gives *spurium* as a synonym of *S. stoloniferum*. *S. dentatum* and *S. denticulatum* are also there given as synonymous, but the Kew list gives none of these.—H. P. A.

Notes from Baden-Baden.—During the past six weeks we have on two occasions only had showers of rain; the rest of that time has been sunny and warm, from 80° to 96° Fahr. In consequence the pleasures of the gardens are reduced to a minimum. Trees begin to lose their leaves, and certain plants used to a cool atmosphere are entirely burnt up. The flowers of *Gladioli* wither before expansion, and many small plants are killed by the heat, notwithstanding the fact that they have been shaded. Under some artificial shade *Littonia modesta* and *Sandersonia aurantiaca* look happy, showing dozens of their striking orange-yellow flowers. Asiatic and American *Gentianas* watered daily are a mass of bloom, and stand the sun well. *G. Olivieri*, with its big clusters of large, glistening blue flowers, is most showy. Deeper in colour, and with fewer but larger flowers, is *G. daurica*, that also does well. A new one has made its appearance, and comes out with turquoise blue flowers, changing afterwards to white. *Adenophora Potanini* alba is quite a gem; the multitude of snow-white bells attracts from afar. *Campanula mirabilis* has been very handsome; it is a much-branched plant about 70 centimetres high, with numerous delicate blue-coloured large flowers, in form like those of *turbinata*. *Pelargonium endlicherianum* seems to like the dry warm air; it is full of bright purple flowers. Its value lies in its hardiness.—MAX LEICHTLIN, *Baden-Baden*.

Forestry at the Highland Society's show.—The forestry section of the Highland Agricultural Society's show, which opened at Perth on the 19th inst., is one of the best of its

kind ever held in connexion with the society, although it is rather smaller than might have been expected in such a district as Perthshire, where forestry is extensively practised. It represents, however, a great improvement upon the same section at Dumfries last year, where the competition was very limited. The organisation was under the charge of the Royal Scottish Arboricultural Society, to whom much of the improvement is due. A leading feature of this section is the comprehensive character of the exhibits sent from Scone, the estate of the Earl of Mansfield, and shown by Mr. Pitcaithley, the forester. The group of conifers in pots from Scone Palace Gardens was most extensive, and seldom, if ever, has one so large been sent from any private estate to a Scottish show. Other exhibits from Scone showed the timber produced on the estate and the uses to which it was applied. The Royal Scottish Arboricultural Society's collection of sections of British trees and of micro-photograph slides of plant tissues was highly interesting. Sir Neil Menzies showed a number of branches of conifers, cones, and timber from his estate. From Murthly, Ochertyre, Zanrick Castle, and other Scottish estates some valuable exhibits were also sent, and the Swedish State Forest Department also contributed specimens. In the competitive classes there was much better competition than last year. In several classes the number of exhibitors was unexpectedly large, with a corresponding degree of excellence.

Carnation Raby Castle.—As a free-flowering border Carnation of easy culture this old variety is still one of the best. Among several varieties I have grown the plants of this sort are conspicuously good, both in growth and blooming. The quantity of flowers that can be obtained from one plant is surprising, and they are very beautiful, too, with their rich pink fringed petals. This variety has given much better results than *Uriah Pike*, *Miss Audrey Campbell*, *Mrs. Reynolds-Hole*, *Mephisto*, *Mrs. Nicholson*, *Richmond*, and others, and for cutting no variety that I have grown has proved more satisfactory. Can any readers of THE GARDEN tell me if Carnations do not like fresh soil? In the spring I made a border for Carnation culture from part of the lawn; that is to say, I removed the layer of turf, well dug the soil beneath, chopped the turves into small pieces, and mixed with the other soil. The result has been disappointing, and I have wondered whether it is because of the presence of the turfy soil. I always understood that the admixture of chopped turves to the border was excellent for plants. This is the only way in which I can account for the somewhat indifferent results these Carnations have given.—A. H. P.

THE ROSE GARDEN.

A ROSE GARDEN IN ESSEX.

HOW generously flowers repay us for loving care is shown in the accompanying photographs. The bed of *Mme. Gabriel Luizet* Roses is one of five of various sorts divided by grass, all of which have been almost equally good this year; they are about four years old. *Caroline Testout* also does well in my garden, as the flowers in the bowls testify. The herbaceous borders are furnished chiefly with *Delphiniums*, *Mulleins*, *Foxgloves*, *Alstroemerias*, *Pentstemons*, and white *Lilies*. You may be interested to hear that I have an old tree of *Mrs. Bosanquet* (I believe), which was by no means young when I came here thirty



A BOWLFUL OF ROSE CAROLINE TESTOUT.

years ago. It has bloomed profusely every year, including the present season, although it is now in a very decrepit condition. A *Souv. de la Malmaison* of apparently about the same age is still quite flourishing.

(Mrs.) L. A. BROOKS.

Duvals, Grays, Esser.

THE PLEASURE OF ROSE GROWING.

It is not a difficult matter to decide by what means we may obtain the greatest amount of pleasure from our Roses. Some seek it through the medium of the exhibition, but there it is dearly bought, at least by amateurs. Our methods of Rose showing are so stereotyped. We think so much of single blooms, that if one would enter the show arena he must begin by making great sacrifices. The pleasure of Rose showing does not permanently satisfy. Anyone visiting a Rose show cannot fail to admire the magnificent flowers seen there. I do not wish to say one word against the practice of growing and showing them. It is something to know to what perfection of form and colouring particular kinds can be brought, but that is not, or should not be, the sole end and aim of Rose shows. A celebrated amateur exhibitor recently visited a garden where Roses are largely grown solely for effect, and he confessed that that was more after his own desire, and he thought he should give up exhibiting. In the course of that ramble he experienced pleasure altogether beyond what he had realised as an exhibitor. To exhibit successfully one must practise numerous details that need never worry the ordinary grower. From the pruning to the flowering there is a marked difference in the methods.

The exhibitor's plants must be hard pruned, and then comes the inevitable disbudding. It is no exaggeration to state in regard to many Roses that the ordinary grower has a score of flowers where the exhibitor can take but one. When the buds are selected then comes the feeding. Then there is the question of protecting and shading from storm or bright sunshine. Yet this is essential to meet the requirements of the exhibition, which at present only fosters the production of fine flowers, and therefore excludes many worthy kinds simply because their flowers are not up to a particular standard of form.

If we would seek and realise the fullest pleasure, we must wait until at Rose shows classes are provided for Roses as grown in gardens, the same to be judged on their own merits, and not from any pre-existing standard. At present one type of flower only is encouraged or accepted, regardless of those lovely kinds so handsome in the bud and so profuse in regard to the great trusses of flowers they produce. In the garden these last often give us the most pleasure. The exhibitor above referred to was charmed with *Mme. Joseph Schwartz* as it appeared in a group, the strong shoots terminated by immense clusters of bloom standing erect, some of the flowers fully out, showing their great flesh-tinted, rose-margined,

shell-like petals, others mere buds of delicate hue opening in succession. *Marquise de Vivens* and *Dr. Grill* were unknown to him, and yet there were not two lovelier groups, especially that of the latter. Such kinds as these never appear at the shows, but why should they not do so? If such kinds treated as the show kinds are will not then produce full flowers simply because naturally there is not sufficient substance, surely they should not be ignored. Whether exhibited or not they will give us much pleasure in gardens, as they are most reliable in regard to their blooming. If the bud of to-day is a full-blown flower tomorrow, that matters not, for quantity atones for want of quality, and even these many-tinted, open, loose flowers have a fine effect on a bright summer day. Again, when we grow

present time we should have great glowing groups of Tea and Monthly Roses filling the air with rich fragrance. Many Roses make such excellent bushes that when grouped and in full growth they effectually hide the earth beneath them. Those that do not do so, and newly-planted groups also, should be carpeted with some of the many dwarf plants so suitable for the purpose. This adds to their appearance and increases our pleasure. Surface-rooting plants, like *Sedums* and *Saxifrages*, and lovely alpines, such as *Linaria alpina*, do not rob the Roses in the slightest degree, but without a doubt they benefit them, for on a scorching hot day I was admiring a group of *The Bride Tea Rose* carpeted with *Sedum glaucum*, and placing my hand under and among the carpet I found the earth cool and moist, whilst bare ground was hot and dry. That night there came the most severe thunderstorm, accompanied by a deluge of rain, that has been in this district for years. Next morning I looked round the Roses, and the full, heavy flowers of this and other kinds were borne down by the weight of water that had descended upon them, but they were pure and unsoiled, for the advantages of the carpet were shown in that no splashing of the earth could take place. A great many are thinking what they can plant to reduce the quantity of tender bedding plants. If they have sunny flower gardens, let them try Tea Roses, for they are ever growing, ever blooming, are a source of great pleasure through summer and autumn, can be planted thickly alone or thinly to admit of combinations, and, all things considered, are the most thoroughly satisfactory of all. A.

CLIMBING ROSE FLORA.

This fine old climbing Rose is prominent in the large collection of old and new Roses in the gardens of *St. Mary's Isle, Kirkcudbright*, the property of *Captain Hope, R.N.* It is used in many ways, such as a pillar Rose, as a weeping Rose, and on walls. In all these positions it is very beautiful, with its masses of delicate pink flowers. A remarkably fine sight in the middle of July was a wall 100 yards long and 10 feet or 12 feet high, clothed with this Rose entirely, and bearing many thousands of flowers. It is a great favourite with the family and their friends, by whom it is known as *Mrs. Hope's Rose*. Mr. Jeffrey, the gardener at *St. Mary's Isle*, believes that this Rose is the same as that sometimes known as *Alva Pink*, a name not to be met with in modern catalogues. In the increased taste for garden Roses, particularly of a rambling or climbing character, it is to be hoped that this fine Rose will not be forgotten, old though it is. S. A.

USES OF BRITISH PLANTS.

CONIFERÆ.

THERE are only three trees or shrubs belonging to this group of "cone-bearers," as the name implies, in Great Britain—the *Scotch Fir*, the *Juniper*, and the *Yew*.

The *Scotch Fir* (*Pinus sylvestris*) is found truly wild in a comparatively few places from York to



DELPHINIUMS AND FOXGLOVES IN AN ESSEX GARDEN.

for pleasure only we shall not have many leggy standards, but dwarf bush plants, and these not set out a yard apart, but grouped or massed, since this is the very best way of showing off the merits of fine Roses.

It is too generally supposed that Roses are gross feeders, and the heavy manurial mulches and the drenchings with strong liquid so commonly given detract from our pleasure. We can modify this to a considerable extent, and have Roses in abundance without the slightest aid from rank manures. If our Rose beds are redolent with the odours of the farmyard, we cannot have them beside our open doors or beneath our windows, and, other things being favourable, that is just the spot where at the

Sutherland, but where planted it multiplies itself by seed. It can attain a height of 100 feet, with a trunk 4 feet to 5 feet in diameter. It is valuable for its timber. Some hundred years ago a Scotch forest supplied sufficient for forty-one ships. It is said that the best masts and spars are constructed from this Pine. The timber is imported from Norway under the name of Red Deal. The use of the smaller branches, &c., is for making tar and pitch. For this purpose they are burnt in an enclosure of earth, covered with turf. Slow combustion thus occurs, and tar is drawn off by a pipe thrust into the base of the mound. The more solid residue is pitch. Turpentine is obtained by removing the bark when the juice exudes and coagulates. This is distilled, the essential oil being called spirits of turpentine, resin being the solid substance left. The Scotch formerly used the roots as candles, as they are rich in resinous matters.

Juniper (Juniperus communis).—This grows in the form of small bushes on the Downs of Sussex, but is much larger or even small trees 10 feet to 12 feet high from Yorkshire to Shetland, assuming a dwarf form (*nana*) on the mountains of North Wales, Westmoreland to Shetland, ascending to 2,700 feet. The wood of this species is not of much use, only being employed for small articles. The principal commodity are the berries, collected for their essential oil. They are included in the British Pharmacopœia, as the "oil of Juniper" is regarded as a local stimulant. It is also used for flavouring gin. The origin of the word "gin" is peculiar. It is short for *geneva*, a corruption of the French *genevra* from the Latin *Juniperus*, which means "youth-producing," from its evergreen character.

Yew (Taxus baccata).—This is a familiar tree nearly all over England and Scotland. A fastigate or erect variety, with the leaves spreading instead of lying horizontally, was discovered in Ireland. From this source all the Irish Yews of this form have been propagated. The Yew seems able to live longer than most, if not all, trees. They grow very slowly after the first half century—about one-twelfth of an inch annually, but trunks of ancient trees are recorded as being upwards of 80 feet in girth. Those at Fountains Abbey are said to have been there in the early part of the twelfth century. The wood is of a yellow-orange tint, and very durable. Some wood brought from the palaces of Nineveh, and recorded on a tablet discovered as having been brought as "Cedar" from Lebanon, proved on a microscopical examination to be Yew, and possibly what was called "Algum" or "Almug." The wood appears to have been one used for the statues of the gods by the Ancients, on account of its durability and hardness. The most famous use of the wood was for bows in the Middle Ages. The leaves and seed (but not the scarlet cup, in which the seed lies) are poisonous to cattle, and the latter to children, who are especially liable to eat it with the sweet cup.

G. HENSLOW.

MESEMBRYANTHEMUMS.—II.

A DRAWBACK to the full enjoyment of Mesembryanthemums—common to many other South African composites, *e.g.*, *Arctotis*, *Gazania*, and others—is their habit of opening mainly in the sunshine of the early hours of the day. Mainly is said advisedly, because a remarkable divergence occurs in some of the genus. A good many, especially of the stemless species, like *M. tigrinum*, remain fast closed in brightest weather until after midday. Others, like *M. scapigera*, cannot be coaxed to unfold until four o'clock,



BED OF ROSE MME. GABRIEL LUIZET. (See page 71.)

and that only on sunny days, while a few are even night-flowering, and do not expand until after sundown. There are several species, nevertheless, that drop out of this peculiar characteristic altogether, and, when once fully blown, do not again close. Of these, *M. lacerum*, a tender species by no means frost-proof, is a noteworthy example. It is now in bloom in the greenhouse, and is remarkable both in foliage and in its full-petalled flowers with incurving stamens, of the shade sometimes described as chamois pink. The triangular, scimitar-shaped leaves with strongly serrated keels are pale sea-green, and a well-grown specimen, even when not in flower, may be used with good effect as a foliage plant. The flowers are produced at the ends of the branches, and last in good condition for several weeks, though the colour changes with age to a more ordinary tone of pink. A more familiar species, which also does not close, is *M. inclaudentis*, a low-growing, spreading plant 4 inches to 6 inches high, with wheel-shaped satiny flowers of pale mauve or heliotrope colour. This may be markedly handsome, or very shabby and uninteresting, according to the care it receives. The dark green cuneiform leaves, when exposed to air and sunlight, are beautifully tipped with scarlet-bronze. It is somewhat more slow-growing and not so hardy as some other kinds, and two year old plants and even older give the best results.

Most of the kinds already noted are tall growing, though some, like *M. spectabile*, may be grown either in upright or drooping form, according to convenience. The different varieties, which are innumerable of *M. falciforme*, however, are all more or less prostrate, being spreading, twiggy shrubs with glaucous leaves and flowers of every shade from deep pink to glistening white. It is astonishing that these showy species should not be more grown than they are, especially in sunny gardens, for they might be used in many ways with excellent effect. I have seen spreading cushions of some of the best varieties in their second season so covered

with flowers that it would have been difficult for a pin to be passed between them. It may almost be said that they flower too freely, for the pretty glaucous foliage is often completely smothered. To ensure such abundance of flower, however, the plants must not be mewed up in the moist air of a greenhouse during the spring and summer, but must have healthy outdoor treatment, taking care only to protect them during winter from frost and damp. In common with some few other species, notably *M. deltoideum* and its allies and *M. lunulatum*, the varieties of *M. falciforme* are very sweet-scented, and when grown in masses will perfume the air with their Almond-like fragrance.

M. edule—the species which probably gave the old name of Fig-Marigold to the genus—is very common in the south-western counties by the sea, where it is naturalised and made of little account, but to come upon a luxuriant mat of its fine triangular leaves, dark green except where the sun has bronzed them and touched their edges with scarlet, stretching out over the sparkling sand, and studded with their wide-open sulphur bosses, is a sight worth a long journey to see. A very similar species as to foliage, *M. rubrocinctum*, has crimson-red flowers and is fairly hardy if grown on a dry wall.

The stemless species, of which there are a great number, are generally included by lovers of Cacti in their collections of succulent plants. They do not give masses of colour like those mentioned above, but are pretty and interesting in the various foliage forms they assume. Of these *M. tigrinum* is perhaps the best known and has sharply-toothed, boat-shaped leaves, each rosette of which produces one handsome yellow flower. Only an enthusiast would trouble to grow many of these vegetable curiosities, but few who have seen the finer Mesembryanthemums grown as they can and should be grown could resist the temptation of trying some of the most decorative species.

Several kinds, referred to by Haworth with great praise, are unfortunately now lost to

cultivation in England, or practically so. A few may be named in case any of them may be still lingering in some harbour of safety whence they may be launched once more. Amongst them are *M. speciosum*, with fine orange flowers; *M. striatum*, which used to be grown by the thousand by nurserymen in the days when these plants were in the zenith of their popularity; *M. hirtellum*, *M. variabile*, and *M. versicolor*, all of which are likely to be showy, as they belong to the many-flowered section. The two last are described as changing the colour of their flowers, *M. versicolor* in particular being of interest from its rubicund tints becoming pale at noon, and reviving again when the sunlight wanes. Haworth, in general, is so accurate in his observations that there is no reason for taking this as a mythical statement. There are many interesting plates of *Mesembryanthemums* to be found in illustrated works of a former generation—e.g., in Redouté's "Plantes Grasses"—in the "Hortus Elthamensis" of Dillenius, and, above all, in the splendid Monograph of the genus (Sahn-Dyck). These works are all to be found on the shelves of the Linnæan Society's library, to which access is always most courteously granted to anyone interested in the subject.

A short list of some of the most desirable species for ordinary gardens is subjoined:

<i>M. amœnum</i> , rose.	<i>M. glaucum</i> , canary yellow.
" <i>aureum</i> , glowing orange.	" <i>inclaudens</i> , heliotrope.
" <i>blandum</i> , white.	" <i>lacerum</i> , chamois pink.
" <i>blandum roseum</i> , pink.	" <i>lepidum</i> , white.
" <i>bicolorum</i> , scarlet and orange.	" <i>micans</i> , crimson.
" <i>cadens</i> , pink and white vars., trailers.	" <i>polyanthum</i> , violet.
" <i>Cooperi</i> , purple-red.	" <i>pomeridianum</i> , yellow.
" <i>edule</i> , sulphur.	" <i>productum</i> , purple.
" <i>falciforme</i> , rose to pure white.	" <i>spectabile</i> , rose.
" <i>formosum</i> , rose, with white eye.	" <i>tigrinum</i> , golden.
	" <i>tricolor</i> , pink and white vars.
	" <i>violaceum</i> , mauve.

* Annuals.

K. L. D.

THE FLOWER GARDEN.

SOME NEW HYBRID CLEMATISES.

FIFTY years ago half the new plants were obtained by direct importation from the country of their origin, and the remainder were selected from seedlings or "sports." To these two sources of supply we must now add hybridisation, which is very different to selection, both in its manner of action and in its results. Of these three sources from which novelties are derived the first is beginning to be exhausted. There will soon be left few or none of those fertile unexplored countries which from time to time enrich our gardens with hitherto unknown plants. But, in compensation, selection will extend itself over an ever increasing field. As for hybridisation, although yet in its infancy, the first results enable us to see what a vast field it offers to our investigations. Here there is no limit to our discoveries. It is a horizon without bounds, where one step forward calls for another; an inexhaustible mine, whose exploitation, far from exhausting the material, adds to it by each discovery some new element. Doubtless we shall have exhausted the flora of every clime before the riches held in reserve in the arena of hybridisation will have been more than glanced at by us. Though there should be nothing new under the sun, there will still be novelties. I would like now to call attention to three hybrid Clematises obtained from species very remote from each other, since one is a perennial. The perennial is that beautiful Clematis with urceolate vermilion-red flowers, whose more remarkable forms have been published. The shrub belongs to the series of large blossomed Clematises like Jackmani, rubella, Gipsy Queen, Perle d'Azur, Ville de Lyon, Comtesse de Bouchaud, Nellie Moser, Viticella venosa, modesta,

&c., whose numerous varieties furnish our gardens with some of their most attractive flowers. Now that the introduction of the parents has been made, a glance at the offsprings will be sufficient to show that they are entirely different. So true is this, that, if these plants had been introduced as having been found in a wild state, there is no doubt that they would have been accepted without hesitation as authentic new species. Does this faculty of continuing, as it were, with his own hands the Divine work of creation do nothing towards raising the gardener in his own estimation, towards giving him a high opinion of his power and of the part he plays in the world? The presence of Clematis coccinea is revealed by the brilliant tinges of vermilion-red. The three plants mentioned have been dedicated—the first, Mme. Raymond Guillot, to the artist; the others to two distinguished ladies of Lyons with a love for flowers. Here follows a description of these varieties:

Mme. Raymond Guillot, herbaceous, annual; leaves deeply divided, reddish petioles; peduncles one flowered; buds purple on their first appearance; flowers of a velvety purple. The product of Gipsy Queen × coccinea.

Mme. Moret, herbaceous, annual; leaves with rounded divisions, obtuse, very irregularly lobed; peduncles many flowered; buds green at first, reddening towards the top; flowers brilliant crimson, with bright red veining; sepals viscid red on the exterior. It has not yet produced seeds. The result of Comtesse de Bouchaud × coccinea.

Mme. Lerocher, herbaceous; leaves large, with large, rounded divisions; peduncles generally bearing three flowers; buds short, very thick, deeply furrowed, green at first, passing to pink at the time of opening; flowers white, margined with pink. Ville de Lyon × coccinea. This race of Clematis is distinguished by the ease with which it accommodates itself to high temperatures. The plants flower magnificently in July and August under the hottest sun, and develop their blossoms splendidly upon sun-scorched walls.

F. MOREL, in *La Revue Horticole*.

NATURAL GROUPING.

SOME of the best garden effects are the result of accident. If in cutting a bunch of flowers one simply puts them together as they are taken from the plants, the effect is frequently much more pleasing than when the arrangement has been studied. In the same way hardy plants of various kinds which may happen to come together not infrequently create a very pleasing effect. Everyone knows how wild flowers grow. There is absolutely no regularity in the way in which they appear, and yet how gratifying to the eye is that natural grouping. Some years ago a Clover field here was cut at the usual time. The weather happened to be hot and dry, and for months afterwards there was one of the fairest floral displays in that field I have ever seen. The second crop of Clover, not running up high, the various wild flowers showed to the best advantage. There were Poppies, Ox-eye Daisies, Corn Marigolds, Matricaria, Cornflowers, with large patches of Viper's Bugloss, the field being a mass of colour throughout the summer. It was a good specimen of Nature's way of arranging things, and was infinitely more pleasing than any studied arrangement could have been. One of the prettiest garden pictures I have ever seen was formed in quite an accidental manner. It consisted of hardy Cyclamens, Narcissi, Primroses, Dog's-tooth Violets, Wallflowers, Anemone pennina, and robinsoniana, Epimediums, Fritillarias, blue Omphalodes, and Megaseas. Only a few square yards were occupied with this variety of spring-flowering things, but the effect was pleasing because there was never any attempt made at arrangement. The border was backed by a Holly hedge, and a Plum tree formed the central feature. The hardy Cyclamens had been planted about twenty years, and covered some square yards of ground. In autumn they threw up hundreds of pure white and rosy pink blooms, and all through the winter and spring they preserved the beauty of their leaves, which differ considerably in form and

marking. Among them grew a lot of the white and chequered Fritillarias, the produce of two or three bulbs that accidentally got among them some ten years ago. There was good protection from cold winds, and the branches of the Plum tree in a measure protected the blooms from spring frosts, which are apt to spoil such things as Omphalodes, Megaseas, and spring-flowering Anemones.

Byfleet.

J. CORNHILL.

DAHLIAS.

WATERING AND GIVING LIQUID MANURE.

IF the weather be dry, as soon as the plants have reached about two strings, as explained in my last article, somewhat copious waterings will be needed; to say how often is impossible, but in really dry seasons twice a week is none too much. It is almost useless to water in small quantities, give at least two gallons at one time to a plant, this will soak the ground to a fair depth and last for some days, whereas if the water is given a little at a time, even if every other day, no good results, as the roots receive little of it. Manure water is also necessary. A large tub should be filled and allowed to stand in the sun if possible, unless the water comes from ponds or has otherwise been exposed to the air, and then a bag full of manure put in and well stirred. This manure may be either from sheep, cows, or chickens, or failing this, use rotten stable manure, at any rate do not be afraid of getting it too strong. Dahlias will stand a lot of manure water in dry weather. Also vary the manure, and put a bag of soot in the tub. In many places sewage is obtainable, and if so by all means give the Dahlias a dose or two of it, but I would dilute it a little, as when strong fiery stuff it may burn the stems. In the case of Cactus varieties for exhibition it is not advisable to overdo the sewage business, or very heavy, though large fine flowers will be the result, and in the case of doubles, if not used with care, the flowers will be very ugly. Well moisten a circle of soil, say, 3 feet across, i.e. 18 inches from the stem each way. The benefit of having a good heavy mulch of rough stable litter on the ground will now be apparent by the amount of water it saves by the litter preventing the sun from drying it up as fast as it is given.

With watering and feeding the plants will push on very fast and the first flowers will begin to open. This may be any time from mid-July to mid-August, but probably about the first week of August. I do not altogether advocate cutting these flowers off before they are out, but at the same time, if the finest results are looked for later, do not allow these first flowers to draw more strength than is absolutely necessary out of the plants; remove them, and look after the young growing wood. I have often seen plants treated very badly in this respect, the grower being so anxious to push on these first fine buds that far too much of the side growth has been lost. Only last year I saw as fine a lot of plants as one could wish completely sacrificed for the sake of half a dozen of the first main stem blooms. By growing the plants in this way there are in July fine strong plants, buds set, young lower growth coming on, which, instead of being left to flower later on, is cut off indiscriminately with the most disastrous result. These first flowers were no real use to the grower who wanted his best blooms from the middle of August till September, but he left his first buds, and when they developed so well congratulated himself on his success, not thinking where he would be in a few weeks' time.

As to the correct way to thin, whilst always attending to the buds already set and swelling and disbudded down about two joints, never cut off the strong young growth. Remove as much of the spindling shoots inside the plants as you like, also any large leaves where the plants are thick, and when flowers hang till past their best cut off the bloom and the wood down as far as disbudded. Of course the strings for tying out the shoots to are added as often as the height of the plants requires it. Some, such as Ajax, Mrs. Mawley, and H. J. Jones, may need four or five, whilst others,

such as Mrs. Winstanley and Aunt Chloe are amply provided with two. Altogether during early August, if the summer is very dry, Dahlia growing is not easy. One prevalent error in dry times is to neglect the safe tying of the plants, as with the hot weather there is little wind, and more thought is given to watering, when perhaps a sudden thunderstorm, though of short duration, may break down the plants. S.

SUCCULENTS.

THE tribe—or, rather, tribes—of so-called succulent plants undoubtedly embrace the most remarkable cases of natural adaptation to circumstances of heat and drought which *prima facie* would render vegetation of any kind an impossibility.

In their case a superabundance of two great essentials to vegetative growth—viz., heat and light—is accompanied by an apparent entire absence of a third and equally indispensable factor—moisture. Those who have visited the natural habitats of these plants, such as the Cacti and the imitative Euphorbias, find them growing as a rule in the poorest of soil, composed mainly of rocky debris, which is for the greater part of the year exposed to a hot and literally baking sun, unrelieved for months together by even a shower. To look at the soil and feel it, one might as well expect to find plants growing on a burning brick-kiln, and yet out of the chinks and crevices there will be growing a number of species varying in size from huge tree-like ones to small heaped masses of ball or Pear-shaped forms, one and all of which if wounded will be found so full of sap that the term "succulents" is seen to be appropriate enough despite the environments. Associated with these we shall find other and very different looking plants of the Yucca, Aloe, and Agave persuasion, equally defiant of drought and baking, and equally juicy, their spiky foliage being thick and hard, and protected in every case with the toughest of skins as a species of vegetable armour. Succulents, however, are by no means confined to the tropics or even sub-tropical districts, though more abundant in the dry regions which prevail there over enormous areas where drought is the rule and rain the exception. In nearly all parts of the world we find localities more or less exposed to drought and plants of many genera fitted to occupy them. Our common House-leeks and Stonecrop are home examples, and will, as we know, thrive on dry walls in the full sun where but little moisture can be retained after rainfall. Their very position necessitates an approach to the constitution of desert plants, since otherwise a spell of drought would certainly starve them to death for lack of the moisture which, as it is, is retained within their condensed fleshy leaves. The secret of resistance to drought lies in this density and compression of the foliage or in its entire suppression and delegation of its vital functions to the stalks and stems, from which the leaves in a long evolutionary process have finally been eliminated. In the Cacti—most of them, at any rate—we see this process of abortion completed. Nothing is left but fleshy stalks, thickened, grooved, and bristling with thorns, which mark the spots where leaves should be. To this category belong the Cereus tribe and those which form ball or Pear-shaped masses. In the Opuntias or Prickly Pears we have a considerable range of forms, some on Cereus or snake-like lines, and others, the more familiar ones, with thick, flattened, Pear-shaped leaves, or rather pseudo leaves; in the Phyllocacti we have the stems still more leaf-like, though still without leaves proper; and, finally, in the Pereskias we arrive at really leafy forms. As a natural result we find these different species fitted for various environments, and the nearer they approach the true leaf form the less we are likely to find them in the open burning *lanos* where their spikier relatives are quite at home. The Cactus-like Euphorbias differ from the Cacti generally in not having apparently as yet reached the entirely leafless stage, since if we examine a growing specimen we shall find at the summit of the spiny, corrugated stalks a number of more or less tiny leaves around

the growing point, which are shed shortly after their formation, and in this way prove that the thorny warts left at their bases really mark the sites of the quite aborted leaves of long-past Cacti. In the Mesembryanthemums and Portulacas we see as it were the link between leafless succulents and plants with ordinary foliage, their fleshy, juicy leaves varying from true leafy-looking types to long, narrow ones, presenting as small a superficial area to the sun as possible. In all plants with green leaves or their substitutes the vital operations of growth are accompanied by a greater or less circulation of sap and a transpiration or perspiring of a portion of this through the pores or stomata of the leaves, and it may be taken as a rule that the larger the superficial area of the foliage the greater is the need of a liberal supply of moisture from below to replace this loss. Hence it is a first essential for a plant exposed to dry conditions for any lengthened period that the transpiring surfaces should be reduced to a minimum, and this explains the weird and bizarre forms assumed by Cacti, Euphorbia, and their kin, and the dense, contracted foliage of succulent plants generally. CHAS. T. DRURY, F.L.S., V.M.H.

TREES AND SHRUBS.

PLANT WOUNDS AND NATURAL PRUNING.

PERHAPS we do not always remember, when we go into the woods, that the trees with tall, clean trunks were not always so smooth and lofty, but started as small plants with branches near the ground. How is it, then, that there is so little evidence of those old branches when they grow larger? The tree must be able in some way or other to get rid of them without injury to itself. This requires breaking the branches in some way, in spite of the fact that perhaps the greatest danger to which a plant or animal can be exposed is a wound, by means of which bacteria may enter and cause blood poisoning or decay, as the case may be. Every healthy organism, whether plant or animal, is able to resist such attacks for some time, which is not a bad thing for the bacteria, as otherwise it would be like the bear living by sucking its own paws—there would soon be nothing but bacteria left to feed upon one another. In our own bodies we have the white blood corpuscles, whose function it is to destroy any bacteria that may find an entrance into the blood. In some diseases infected spots are shut off from the rest of the body by layers of resistant tissue that keep the "germs" from getting into the general circulation, and in time cause their destruction from lack of food. Plants do not have white corpuscles, but it is certain that they have some means of resisting such attacks.

Perhaps the simplest way of keeping out bacteria would be the drying of the tissues around the wound, and we find that this takes place frequently. The hard, dry cell walls do not easily yield nourishment to the "germs," as we know from the length of time seasoned timber lasts. Cellulose, which is the principal constituent of the cell walls, is closely related to sugar, starch, glucose, and a number of gums, but it is much more resistant to the action of chemicals, and digestive fluids do not readily dissolve it. When the wood is fresh there is a greater chance that the cellulose may be eaten away. After drying it resists the attacks long enough to give the plant an opportunity to strengthen its defences. Among many cryptogamous plants this is the sole method of protection, while only a few phanerogams depend on it alone. As a rule, they produce a layer of "wound-cork" that cuts off the injured spot from the underlying parts of the stem. This is nearly a complete cure in the case of the more tender parts. Woody stems form a callus by the growth of the surrounding cells that afterwards form a corky layer. The new wood gradually spreads over the wound until the edges meet and coalesce. Outwardly it seems as if there had been no harm done, but the

injured cells inside remain brown and dead, and can be seen until the decay of the tree by cutting into the wood. When a thin section of the "wound-wood" is examined under the microscope it is seen to be made up of nearly cubical cells that are quite unlike the usual elongated cells of normal wood. As the tree increases in diameter these wound cells become more and more like those of injured wood.

Many plants possess strongly-smelling ethereal oils that play a part in warding off enemies that might otherwise use them for food. These substances are often contained in special glands or receptacles. The different gums and resins occur in similar canals and receptacles throughout the plant. One of their principal uses seems to be to flow out and cover up wounds, and in this way to prevent the entrance of injurious fungi or bacteria. Cherry Tree gum is familiar to all, and the resin on Pines and the related trees will keep away almost anything, including bacteria, but a small boy with climbing proclivities. Most of the information here given was obtained from Strasburger's "Lehrbuch der Botanik," but the subject was suggested by seeing some peculiar lumps on the trunks of the Beeches. There seemed to be no especial reason for their presence until it was noticed that nearly every one had either a dead twig protruding from it or showed some sign to indicate that one had been there. It is evident that a dead branch is in reality a serious kind of a wound, for the decaying wood is in such close connexion with the main stem that there is great danger of the infection being communicated to the whole plant. When the dead branch breaks off close to the trunk the problem is practically the same as when the bark is injured, and new wood is formed around and over the stump and finally encloses it. Many of the knots seen in lumber are simply these old branches that were enclosed in this way. They are darker than the surrounding wood, because they were exposed and had begun to decay. The lumps on the Beeches showed what efforts the trees were making to cover the tiny dead branches. In some cases they were so successful that there was nothing on the surface to show that a twig was underneath. But when they were cut open it was all plain enough, and a little search revealed all stages, from twigs not yet buried to those with the tip still showing, and then the final step, when all trace was gone. In the course of time the knobs disappear, and there is nothing to show that they had ever been there, except when we cut into the wood and see the knot.

The Beech is a tree whose branches are very responsive to light. One close in to the trunk will often grow only a small fraction of an inch each year, while another at the end of a prominent branch in the full sunlight may grow 1 foot or more in the same time. The winter bud-scales of the Beech leave ring-like marks around the twig when they fall off, and by these we can tell the age of the branch. They are most conspicuous on the underside of the twig, for they seem to appear sooner on the upper side, probably on account of the slightly more rapid growth there. Occasionally a twig scarcely a span in length will represent the growth of a quarter of a century, but this does not give a correct idea of the age of the tree, because most of the growth of the latter is at the top, where it has enough light. No doubt, the twig started to grow when the tree was quite small, and it would be of interest to cut into the trunk of some dead tree to see just how far we can trace the branch. The main point, however, is that it is in an unfavourable situation, and in time succumbs, and at last breaks off. When the stump is short the tree has little difficulty in protecting the wound in the way described. The longer stumps are the cause of the formation of the lumps seen here and there. The Beech is not the only tree that gets rid of its superfluous branches, though we do not often see trees with such knobs as we have described. When a tree grows in the open it may have low branches in a healthy condition, but wherever they are crowded together the lower ones die. They are unable to receive enough light, and the upper ones do the work for the entire tree. As fast as they die and drop off

the scar is covered as we have seen. Failure to do this properly and soon enough results in permanent injury, and the decayed portion spreads down through the trunk, giving in time a hollow.

C. E. WATERS, in *The Plant World* (America).

GENISTA VIRGATA.

ONE of the showiest shrubs at Kew at the present time is the above, and in several places it may be seen in full flower. When mature it forms a large bush 15 feet to 18 feet high and 12 feet to 15 feet through, and when in blossom it is a mass of yellow from top to bottom. It is a native of Madeira, and is of very old introduction, though, strange to say, it was to be found in very few trade lists until recently. At Kew there are several very old plants near the Pagoda, and in one place it has become naturalised. Grown from seed it soon makes fine specimens, especially if the shoots are stopped a few times during the first year or two. It is as well to keep the young plants in pots until they can be placed in permanent positions, as transplanting is risky, the tops as a rule being altogether out of proportion to the



TREE OF MAGNOLIA CONSPICUA SOULANGEANA IN A WOKING GARDEN.

roots. A closely allied species, *G. cinerea*, found in South-west Europe, is also now in flower at Kew. The habit of this is looser than *G. virgata*, otherwise it is very similar. Both species flower at the same time, the earlier blossoms appearing during the early days of June, while some flowers last until the middle of July. Loam, rather light than heavy, is suitable for both, while *G. virgata* is doing well at Kew in very light, sandy soil.

W. D.

MAGNOLIA SOULANGEANA.

THE tree shown in the illustration is *Magnolia soulangeana*, which is growing in the grounds of Hart Hill, Woking, belonging to Mr. T. B. Gabriel. The tree is over thirty years old, and at the time the photograph was taken it was bearing over 3,000 blooms. It is said to be the finest *Magnolia* in Surrey.

THE SCARLET-BERRIED ELDER (SAMBUCUS RACEMOSA).

This Elder is of wide geographical distribution, occurring throughout the greater part of Europe,

the northern portion of Asia, and even on to Japan. In general appearance it is somewhat like the common Elder, but is easily distinguished by the clusters of flowers being pyramidal instead of flat, and by the berries being scarlet when ripe, which takes place soon after the flowering season of the common Elder is past. For some reason or other it often fails to fruit in this country, but this year it is in many cases more thickly studded with berries than is usually the case. Some of the cut-leaved forms, of which branches were shown at Holland House, were also covered with fruits. These cut-leaved forms just alluded to occur plentifully among the varieties of *Sambucus racemosa*, first among them being the variety *serratifolia*, whose leaflets are deeply cut. This character is even more pronounced in *plumosa*, then comes *laciniata*, till the extreme is reached in the variety *tenuifolia*, which has the segments reduced to narrow strips, suggesting in general appearance some of the Japanese Maples. When growing freely these cut-leaved forms are, especially during the first half of the season, very ornamental, and if they can always be induced to berry as freely as in some of the specimens shown, their beauty later

on will be assured. In addition to the several forms just enumerated there is a golden-leaved variety of *Sambucus racemosa*, viz., *plumosa foliis aureis*, in which the leaves are pale yellow, but become of a golden hue as the season advances. They are in addition fringed as in the variety *plumosa*. It is a very pretty shrub where it thrives, but it will not flourish under such adverse conditions as the golden variety of the common Elder, which is seen at its best (as far as colour is concerned) in a hot, dry soil. A variegated-leaved form of the common Elder (*Sambucus nigra*) is also in cultivation, and a decidedly useful shrub it is, particularly in the neighbourhood of London. An Elder which has only come prominently forward within the last few years is the *Sambucus pubens maxima* of nurseries; the correct name may be *Sambucus canadensis*, but on this point there is some doubt. It forms a bold-growing shrub, not so woody as the common Elder, but still it reaches a height of 6 feet to 10 feet. The flattened flower-clusters are, in vigorous examples, as much as 18 inches in diameter, and, apart from their size, are usually at their best towards the end of August, when all the other Elders are long past. T.

NOTES ON HARDY PLANTS

TWO SISYRINCHIUMS.

CURIOSLY enough there is no mention of either of the *Sisyrrinchiums*, with which this note is concerned, in any of the last fifty-two volumes of THE GARDEN, which is, I venture to think, a somewhat remarkable circumstance, since both are distinctly pretty flowers. *S. bermudianum* has violet-coloured flowers, which only expand in the sunshine, about an inch across, and borne in great profusion from the late spring for many weeks. It is a fairly common plant in the south-west, and I know it in many gardens where it invariably comes through the winter unharmed, though entirely unprotected. It spreads rapidly, and can easily be increased by division. In "Nicholson's Dictionary of Gardening" its height is given at from 1½ feet to 2 feet, but I have never known it to exceed 1 foot except by an inch or two. *S. iridifolium* is a native of Chili, and was formerly known as *Marica iridifolia*. It bears clear yellow flowers, an inch in diameter, from early in June until the autumn. These flowers are very fugitive, only lasting a few hours in full beauty, but they are produced in such abundance that the plant is never out of bloom. It is rather over 1 foot in height. Both species are doing well in my garden, and are such persistent bloomers that their absence would be a distinct loss. I fancy that *S. iridifolium* is rather rare, as I have only met with it in one other garden. *S. grandiflorum* and its variety *album* are well known and often referred to, and *S. striatum*, also occasionally mentioned, is a coarse plant of no particular merit. S. W. F.

CAMPANULA PERSICIFOLIA MOERHEIMI.

THIS is a valuable addition to our hardy herbaceous plants. It is said to have originated in a seedling bed of Backhouse's variety of *Campanula persicifolia alba* at Moerheim Nurseries, Holland, but is very different, both in habit and appearance. It rarely exceeds 2 feet in height, whereas Backhouse's variety is often over 3 feet high, and its flowers are carried much closer together. The blossoms are pure white, rather flat than bell-shaped in form, semi-double, and about 3 inches across. It is of very hardy constitution, and increases far more rapidly by division than does Backhouse's variety, which is, however, a very beautiful plant. I have this year two dozen flowering plants of *C. p. Moerheimi*, the progeny of one plant that I procured two years ago. S. W. FITZHERBERT.

DIGITALIS OBSCURUS.

THE species referred to by Mr. Fitzherbert in a recent issue of THE GARDEN has never, I think, become widely distributed in English gardens. I grew it about fifteen years ago, but cannot remember for certain where I got the seeds from; I rather think they came from Mr. Thompson of Ipswich. I remember trying to fertilise the spotted Foxglove with this and with *aurea*, but nothing came to show that the pollen had exercised the slightest influence, and I believe this to be the experience of others who have experimentalised in this direction. In order to make sure I did not allow the plant to be operated on to bear pollen. The flowers were fertilised several times, but not one single pod swelled up. It would therefore appear that the various species of Foxglove have not the slightest tendency to intermingle. A race of Foxgloves with the colour of *aurea* and the stature of our native species would be an acquisition. J. CORNHILL.

LYCHNIS VISCARIA SPLENDENS.

THE double form of this *Lychnis* was uncommonly fine with me this year. On and about the plants I counted upwards of 200 spikes, these being unusually strong, the flowers being large and very fine in colour. My plants are on a raised bed where the drainage is very free, and where

they are fully exposed to sun and air. In light, warm soils this *Lychnis* does very well on the level, but I think that the flowers never take on their true, rich colour unless they get full exposure to sun and air, and the plant has rather a languid appearance as if it were pining in a too confined atmosphere when placed among things of taller growth. Some years ago I was much troubled with a fungus that completely destroyed the vigour of the plants. It came on in the autumn with the first spell of damp weather, the leaves becoming thickly covered with small black spots. I had to destroy my stock, and did not grow it for a couple of seasons. I then got plants from a clean stock, and have not since seen any trace of fungus. J. C.

HEUCHERA SANGUINEA.

THE *Heuchera* described by Mr. Amos Perry in a recent issue of THE GARDEN is, I think, identical with a variety now in bloom with me. I have found the old *sanguinea* to be very uncertain in the matter of blooming, a good-sized specimen frequently not throwing up more than half a dozen spikes. Two years ago I bought in a lot of young plants, and when they came into bloom it was patent that they were seedlings. Here and there one showed the true bright colour of *sanguinea*, but the majority were much paler. I was going to throw them away, but fortunately did not do so, for two of them are flowering with remarkable freedom. The flowers of one are only tinged with red, the other is bright rose, and the leaves are more strongly marked, reminding one of the variegation of the leaves of the Ivy-leaved *Cyclamen*. I shall save seed from these *Heucheras*, and may possibly get something even better. When blooming freely the *Heuchera* is very effective. J. CORNHILL.

NEW & RARE PLANTS.

BOUGAINVILLEA MAUD CHETTLEBURGH.

WHEN shown by Messrs. William Bull and Sons of Chelsea, at the recent Holland House show, this new *Bougainvillea*, the finest yet introduced, created much interest. Some of the growths exhibited were fully 4 feet long, and bore numerous bunches of showy bracts of a rich rose purple colour and unusually large. The life size of those represented is 2½ inches deep by 2 inches wide. Their large size and rich colour combine to produce a very

striking effect when a well-grown plant is seen. This *Bougainvillea* belongs to the woolly-leaved section, and is, therefore, quite distinct from *B. glabra*, which is smooth leaved. *B. lateritia* appears to be the nearest ally of this new variety. The woolly-leaved section of the *Bougainvillea* have the drawback of not flowering freely, and probably on this account are not so largely grown as the smooth-leaved sorts. *B. Maud Chettleburgh*,

find the space too small for their vigorous growths which make their way through the ventilators, and bloom just as freely where exposed as in the house. Although this new variety would make a beautiful display when grown against a wall under glass or along the roof, it is valuable as a small plant, and for this reason alone will probably quickly become popular. It has received an award of merit from the Royal Horticultural Society. For its introduction we are indebted to Mr. Chettleburgh, Weststead House Gardens, Norwich, and from him Messrs. Bull and Sons have acquired the whole stock. This *Bougainvillea* may be propagated from cuttings.



THE NEW BOUGAINVILLEA MAUD CHETTLEBURGH.
(The bracts are rich rose-purple, large and freely produced in bunches; a few leaves are shown at the top.)

however, has not this fault; in fact, the profusion of the flowers is one of its best features. It blooms splendidly in small pots, although to be seen at its best it needs to be trained over the roof of a greenhouse or stove. *Bougainvilleas* usually flower more freely when grown in a cool house; in fact, the plants often

PELARGONIUMS.

FORMERLY it was only the show and fancy varieties which were called *Pelargoniums*, but now the zonals, Ivy-leaved, and all Cape species come under the name. It is to the show or regal varieties that these notes refer. These will now be getting past, but there will be time to select for another year, and those who have stock may be reminded that it is now time when they need attention if good plants are to be had for another year. The plants which have been flowering should be placed in the open, and water withheld to ripen them off. It will depend somewhat on the condition of the plants. If they are too fleshy and succulent they must be gradually ripened, that is, only a little water given until the wood begins to show a brownish colour. When properly ripened off, which should not be

later than the first week in August, they should be cut back. I like to cut down as close as possible, and to make the cut just above the eye (or where there has been a leaf).

When the plants have been cut back they should be kept quite dry for a few days, and when the cuts are dried over they may be frequently sprinkled, but very little water given at the roots, and as soon as they begin to start into new growth they should be repotted. Most of the old soil may be shaken out and some of the roots trimmed off. They will usually go back into smaller pots. For potting the soil should consist of two-thirds good fibrous loam, the other third made up of well-rotted stable manure and leaf-mould, and to this may be added a little bone-meal and some sand. It will depend a little on the loam. Some may not require any sand, but if it is inclined to be heavy a liberal addition will be beneficial. In potting the soil should be pressed fairly firm, taking care that it is made as firm, or rather more so, at the

bottom than on the surface. After potting water should be given sparingly until the plants have made a good start. They may be placed in a pit with the lights off in fair weather, but they must not be exposed to heavy rains, and they are better taken into a house quite early in the autumn. During the late autumn and winter it is most important to give them as much air and light as possible, and as long as the temperature is kept above freezing point the less artificial heat given the better. It is in giving Pelargoniums too much heat in winter that they are often spoiled. Light, air, and plenty of room are essential. Watering requires regular attention. When they are well in leaf they will take up a good deal of water.

Potting on should be attended to; those started early may be ready for larger pots in autumn, but if not done by the end of September they should remain until early in January, and when potted on care should be taken that the soil is in good condition, that is, not too wet or too dry, also that it is not cold. For winter potting it is important to see that the compost is made quite as warm as the temperature of the house where the plants are growing. After plants are in their flowering pots and well established manure may be used, but if they are required to flower early it should not be applied too freely.

INSECT PESTS.

A great point towards success in Pelargonium culture is to keep them free from insect pests. We now have so many good preparations for fumigating with that this is not difficult if it is taken in time. At the first appearance of aphides, or even before they are seen, the house should be fumigated. If done periodically, taking care to select a quiet evening, it will be much better than waiting until the insects have got a good start, when it may be difficult to eradicate them. Some plants may be potted on later in the spring, but for those required to flower early it will be better not to give too much pot room.

PROPAGATING.

The plants, when cut back, provide good cuttings; the short, firm wood gives the best results. The flowering portion may be cut away to where there is a leaf-bud at the base of the old leaves. The cuttings root freely in any light, sandy compost, frequently sprinkling overhead, with very little water at the base of the cuttings until they begin to root, but the soil should not get too dry. I find some go to excess in this matter, and if the cuttings are not actually lost they take much longer to make a good start when kept too dry.

Cuttings put in early in August ought to be ready for potting singly in 3-inch pots not later than the first week in October, and should be stopped as soon as they have made a start. Most sorts may not require any further stopping, or a few of the dwarfs may not require any, as they will branch out naturally. With attention the autumn-struck cuttings make good flowering plants for the following year. Most of those seen in the markets are from cuttings taken the previous autumn, and to get a plant well covered with bloom it may be necessary to take out the first flowering point and let the secondary or side shoots come on together. To succeed well with Pelargoniums they require regular attention at all times of their growth; in fact, this is the secret of all successful plant culture in pots.

VARIETIES.

These are now so numerous and varied that it is better to recommend those who would grow them to select their own while they are in flower, but I will give the names of a few of the best and most distinct: Duke of Cornwall, large flowers, crimson, with a purple shade and light margin to petals, dark blotch on upper petals; F. Kellaway is very similar; King Edward VII., bluish pink of a pretty shade; Mrs. A. Hemsley, similar, but not quite so deep in colour; Lord Kitchener, bright red, dark blotch; Mrs. George Gordon, a pretty shade of pink; Lord Cromer, orange-scarlet, crimson blotch; Lady Primrose, bright rose, dark blotch on upper petals; Blue Mabel, purple-blue; Edward Perkins,

bright scarlet, with an orange shade; Eucharis, pure white, with a faint pink blotch on upper petals, one of the best; Queen of Whites, Alice Hayes, Victoria Regina, and Purity are good whites; Hamlet et Ophelia, mauve; New Monarch, rose, dark upper petals; and Lord Roberts, red, with dark blotch. Many others might be added, but the above is a varied selection of good sorts.

A. HEMSLEY.

GARDENING OF THE WEEK.

FLOWER GARDEN.

VIOLETS.

DURING hot, dry weather the leaves should be frequently syringed to ward off attacks of red spider. The stream of water should be forcibly applied to the under side of the leaves, for it is there that the enemy lurks. The plants will also benefit from an occasional watering. A good mulching or frequent hoeings greatly economise labour in this respect. Keep the Violet plants free from runners.

FLOWER-BEDS.

As the plants grow so the work increases. Until the present time there has been an almost unprecedented amount of watering to be done. Lately the sun-heat has been supplemented by hot drying winds, which seem to have distressed plants of all kinds and added greatly to the labour of watering. In the beds devoted to carpet bedding there is a deal of pinching and stopping to be done. The Alternantheras and Iresines have not grown so strongly as they might have been expected to do. These and any other backward plants should be sprayed with water from a fine rose can towards the end of the afternoon. If the labour can be spared do this twice daily, at an hour's interval. The progress of the plants will be the quicker, and an occasional watering with weak liquid manure will also have good results. Such rapid growers as Mesembryanthemum cordifolium variegatum must be frequently pinched to keep them to their allotted space. The outlines of the design must be kept distinct or the whole will present a jumbled appearance. The flower-beds must be frequently edged and cleared, removing all dead flowers and stalks and seed vessels from Begonias, Geraniums, &c., as these will retard the flowering of the plants. As they fill the space allotted to them, all procumbent plants, Ivy-leaved Pelargoniums, Verbenas, and so forth are the better for an occasional thinning and regulating of the growths. They will be sturdier and flower better, and particularly in the case of the Verbenas. This will keep mildew in check. The hot weather and copious waterings have suited the tall-growing Lobelia cardinalis and its varieties. These are growing most vigorously and require staking. In tying ample room must be allowed, and the tie should be placed under the leaves. These amply repay frequent applications of liquid manure, as also do many of the strong-growing sub-tropical plants. If large flowers are required, Zinnias should also receive assistance, and the flower-buds should be thinned. Mice are very fond of the flowers of the dwarf French Marigold, and unless trapped will quickly disfigure the plants.

HARDY NYMPHÆAS.

The almost tropical summer has been to the liking of the hardy water plants. Nymphæas have flowered more profusely and been brighter in colour than for several years past. To permit the flowers to be seen, the foliage of many of the vigorous growers, especially Nymphæa Marliacea chromata, must be constantly thinned, and as they finally close the flowers should be removed, as the plant will throw its energies into seed production to the detriment of bloom. A long-handled flower gatherer and a light rake will facilitate the removal of the superfluous leaves and faded flowers. If it can be brought into flower under glass the blue N. daubenyana will, under favourable conditions, continue to flower out of doors. For a few days after

removal any plants so treated should be shaded during the hottest part of the day, or, despite the fact that the leaves are on the water, they will burn badly. Water rats occasionally attack the roots of the Nymphæas, but during the summer they usually content themselves with the seed pods, to which they are welcome, especially on large ponds of the native white-flowered Water Lily.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

KITCHEN GARDEN.

HERBS.

If these are likely to be in demand during the winter months they may now be cut and dried. Make each sort up into small bunches and place in a dry, airy room free from dust. If the weather should be wet, the herbs when cut may be dried in a vinery. The drying should be carried out slowly; if not, the leaves will drop from the stems and the whole will be useless. Herbs such as Mint and Sorrel may be cut down again for the last time. This prevents the plants from being weakened by seed-bearing. A rich top-dressing will benefit the herb border at this date. Where Camomile is grown the flowers may be gathered when fully expanded and placed to dry in a not too sunny place.

TOMATOES.

Plants in pots carrying fruit will require close attention with water two or three times a day in this hot sunny weather. Late batches, where the fruits have just set, may be assisted with a rich top-dressing, and liquid manure should be given immediately the roots show again. All side growths should be removed, and foliage that may overshadow the fruit may be tied back. The practice sometimes adopted of cutting half the leaves back is a mistaken one unless the season is very sunless. Where outdoor Tomatoes are grown, they will be a success this season if they receive the requisite attention. As soon as several trusses of fruit are set the plants may be stopped and liberal treatment given them. Seeds for winter and spring fruiting may be sown now in a gentle heat, and the plants grown on hardily.

SCORZONERA AND SALSIFY.

Plants from seed sown about the end of May will now require thinning. There is not the same fear of this sowing running to seed, and liberal treatment may be given. These are two vegetables that require good well-manured soil, as fine, large, and shapely roots are not often found. Some reliable chemical manure may be pricked in between the rows, or, what is even better, a good top-dressing of rich farmyard manure. Water should be given in plenty should dry weather again set in.

JERUSALEM ARTICHOKEs.

These have now attained a good height. If earthing up has been attended to the crop will be the more easily taken from the ground. Where the stems reach the height of 6 feet they may be topped without injury to the crop. This also prevents the wind from blowing them about so much, as they are rather an untidy subject in the vegetable garden, and an out-of-the-way corner should be given up to them if possible.

Hopetoun House Gardens, THOMAS HAY.
South Queensferry, N.B.

FRUIT GARDEN.

PINES.

Most of the fruits will have been cut from the earliest Queens. The best suckers should be taken off and the house cleared of the old stools. Thoroughly cleanse the house and get the bed in readiness by adding fresh tan or leaves to induce a steady bottom-heat of as near 85° to 90° as possible to receive the Smooth Cayenne and Rothschild sorts for supplying a crop during the winter. These generally show fruit about this time. Plunge the plants, give plenty of moisture by damping the walls several times daily, and keep a night temperature of 75°, falling to 70° in the morning. Close early with sun-heat, and reduce the fire-heat as much as possible. Allow the

temperature to run up to 90°, and lightly spray the plants overhead at closing time on bright days only. The strongest plants of successions which are intended for starting early and are in their fruiting pots will require careful treatment during the next three months. Keep the bottom-heat steady at about 80° to 85°, and do not allow the plants to become too dry. Freely ventilate early in the day, and keep a fairly moist atmosphere by frequently damping the paths, &c. Close the house early, and keep the plants growing steadily until they require a rest. Later plants of successions which are growing freely should be potted into 10-inch and 12-inch pots, according to the variety, and encouraged to grow freely by keeping the house a little closer for a time and by giving plenty of atmospheric moisture. Shade a little during the hottest part of the day, and lightly syringe the plants overhead. The largest and best suckers should be potted into 7-inch or 8-inch pots; a few may be large enough to go direct into their fruiting pots. These plants must be kept growing steadily by careful treatment as for successions. Fresh suckers should be put in at intervals to keep up a succession and plunged in a bottom-heat of 85° to 90°. Lightly shade and keep close for a time, gradually increasing the ventilation as the plants get rooted through.

THE ORCHARD HOUSE.

The earliest Peaches and Nectarines in these houses will be cleared of their fruit and be in a condition for potting. This must be carefully done, using a compost of good fibrous loam, lime rubble, and bone-meal, and it is very necessary that they should be firmly potted. Afterwards plunge them in a nice open position, lightly mulch to economise labour, and syringe freely morning and evening. When it is necessary to reduce the roots of old trees much they should be kept in a cool, moist atmosphere, frequently syringed, and lightly shaded, when in a very short time new roots will have formed. Then they can be plunged outside and treated as above, and the trees again well established before the leaves fall.

Later trees will now be swelling their fruit fast, and should be liberally treated and never allowed to suffer for want of water. Light top-dressings at intervals of good rotten manure and occasional sprinklings of Thompson's Vine Manure will improve the quality of the fruit. Keep all the laterals pinched in to about the end of July, and do not allow any unnecessary shoots that are not required for the formation of the tree and next year's fruiting.

Impney Gardens, Droitwich.

F. JORDAN.

INDOOR GARDEN.

BEGONIA GLOIRE DE LORRAINE.

PROBABLY of all the winter-flowering Begonias there is none better than this. Well-grown plants will continue to flower for at least six months. During August and September the plants are liable to make more vigorous growth than is the case earlier in the season. To prepare for this place them at once in the pots in which they are to flower, so that when the time arrives they will not be given a check. They are not vigorous-rooting plants, and in consequence require only moderate-sized pots, which must be clean and well drained. A good compost for them is formed of equal parts of good turfy loam and peat, with a very little coarse sand added. Although heavy shading is not advised, it will be necessary to afford them a light protection from strong sunlight, and the atmosphere of the house should be kept moist.

BOUVARDIAS.

While it may be necessary to allow the older plants to flower, it is advisable in the case of the late propagated young plants to nip out the points of the growing shoots to encourage them to break and eventually form bushy plants. Repotting the latter may be necessary, and as these plants appear to like peat this should form the principal ingredient in the compost. For some time yet a cold frame is best for them, as in such a position the growth they make will be strong. Older plants that are to flower early may be placed in a

house where they can enjoy a little warmth with abundance of moisture.

FREESIAS.

Some of the earliest bulbs should now be potted up from which to obtain the earliest supply of flowers. In this case 4-inch pots are the best to use for the purpose, and in a compost of fibrous loam mainly, with a little leaf-soil and sand added, they will grow strong and flower abundantly. Cover the pots with sand or cocoanut fibre to keep the soil moist and to encourage the bulbs to root freely, but immediately the growth is well through the soil remove them to a cold frame.

CINERARIAS.

A mistake frequently made with these plants while young is to allow them to remain too long in small pots, as consequently they suffer a severe check from getting dry at the root. A compost that is light and free suits them best in the early stages, and a position near the glass in a cold frame is an ideal one, but give them shade from the hot sun and sprinkle water freely amongst the pots.

PRIMULAS.

These plants dislike a dry, hot soil. They require a very light shade, with plenty of air; indeed, the frame lights during the night, providing reliance can be placed on the weather, would be better removed altogether, as the leaf-stalks of the plants then would remain short and stocky.

J. P. LEADBETTER.

Tranby Croft Gardens, Hull.

ORCHIDS.

CATTLEYA HARRISONÆ.

THIS fine species will now be throwing up its welcome flowers, and to obtain the best results the plants should be given much light, but sufficient shade to prevent the leaves from becoming discoloured. The early morning and evening sunshine is very beneficial to them, and the bright, hot weather we have had during the past few weeks has promoted a strong and healthy growth. Strong-growing plants will require water very plentifully till the flowering season is over, and it is essential that the atmosphere is kept sweet and buoyant by judicious ventilation. This *Cattleya* is very useful to exhibitors during August and September. The flowers when well grown are carried well above the foliage, and it is of easy culture. Apart from its usefulness to the exhibitor, it is well worth growing in quantity either for cutting or for furnishing the Orchid houses with bloom when flowers in these structures are very scarce. It has also proved a useful parent in hybridising, and I am convinced in the near future many more fine hybrids will be flowered in which this species will figure as one of the parents. After the flowering season is past the supply of water should be gradually reduced, and when the new pseudo-bulb has attained full maturity only sufficient to maintain solidity is required. The two most important items to be observed in their cultivation is to always keep a sweet, buoyant atmosphere and to give them at all seasons a light position.

LÆLIA ELEGANS AND VARIETIES.

These beautiful natural hybrids are somewhat erratic in their season of growth and flowering. Many will now have passed through their flowering season, and these will be benefited by being kept somewhat drier at the roots. Others are now producing their flowers, when abundance of water is needed if the plants are in a healthy state and the pots well filled with active roots. The flowers are produced before the new pseudo-bulbs are matured, so that the diminishing of the water supply after flowering should be very gradual. Like most of the long-bulbed *Cattleyas*, *Lælia elegans* revels in plenty of strong light. Often-times new growths are produced shortly after the flowering season is over, offering the most favourable time to repot if it is required. Use a compost of two-fifths fibrous peat, two-fifths good sphagnum cut up, and one-fifth leaf-soil. Mix the whole well together with some sand and small crocks. Pots are the most suitable. When growing the

plants make very strong roots that prefer a dry receptacle in which to ramify. In the case of pots that are over 7 inches in diameter they should be half filled with rhizomes, using less when smaller pots are used. It is not advisable to pot those at this season that lay dormant after flowering. I prefer to see them wait till the spring before again starting into growth, but many forms of them will persist in growing, and it is those that should now have attention.

CATTLEYA GRANULOSA AND C. LEOPOLDII.

These are now fast attaining full development, and those now throwing up their flowers should be so placed that they have the advantage of much light all round. Until the flowering season is over they will require plenty of water. When many plants are grown this is carried over a rather long season, as each plant as they pass out of flower will require individual treatment, reducing the supply to those that have flowered, and increasing the quantity to others when the flower-buds are visible.

W. P. BOUND.

Gatton Park Gardens, Reigate.

INSECT PESTS.

AMERICAN BLIGHT.

THE present year will long be remembered as one most prolific in insect pests, and never do I recollect having seen Apple trees worse affected with the well-known woolly aphis, or American blight as it is frequently but incorrectly named, as the pest was originally European, and is now cosmopolitan, as it appears to thrive wherever Apples are grown. Old orchard trees in some districts are covered with the white woolly substance, which denotes the presence of the insects, and here the old story crops up again about neglected fruit trees. Those old gnarled specimens, the stems and limbs of which are covered with moss and lichen growths, are perfect nurseries of insect pests, including American blight, and though so far as their own value is concerned they may not appear to be worth keeping clean, there are young trees on every side which suffer through the old specimens being infested.

Often great festoons of woolly matter may be seen suspended from the trees, and, when these are carried away by the wind and deposited on other trees in the vicinity, the insects are transferred as well, and another colony is established elsewhere. Perhaps no one would be very much poorer if American blight did succeed in killing some of the miserable old worn-out trees which it infests, but they seem to linger on in spite of persecution, and it is on young specimens that one may observe to the full extent the damage this pest is capable of doing. When woolly aphis establishes itself on the fresh green shoots of a young Apple tree the sap is drawn out of the bark, which splits, and ugly swelling and excrescences appear. Canker sets in, shoots die back, and if the pest is allowed to proceed on its course of destruction unchecked the result not infrequently is the death or, at any rate, the ruin of the tree.

It is easy enough to bemoan the sad state of trees now through American blight, and attribute the cause to the season, but the time to make a grand attack on the pest is in the winter. Some proprietors of orchards still think it is worth their while to follow the old custom of whitening the stems of the trees with lime wash, but scores of others do not, and woolly aphis as well as other pests flourish through this neglect. I have not a word to say against lime-washing, except that it makes trees look ghostly; but in the case of young trees, particularly, I would prefer to use the now well-known caustic alkali solution. Half a pound of caustic soda with half a pound of pearl ash and a little soft soap make five gallons of liquor, and by means of a sprayer it can readily be applied to the stems and lower branches of trees when growth is dormant. If the trouble of obtaining the ingredients and mixing them is too great, the

insecticide merchant steps into the breach and supplies the liquid prepared and ready for dilution.

But American blight is not readily obliterated, and even after a strong winter attack it is almost sure to make its appearance again in the summer. It must be harassed again if it is to be kept under, and at this time of the year one cannot do better than obtain a good insecticide, such as paraffin emulsion, and apply it to the affected parts by means of a brush. By an all the year round effort of this character American blight can be kept under, and young trees in an orchard, garden, or plantation may be relieved of the pest. Clearing the country of it is another matter altogether, and a thing impossible without co-operation.

G. H. H.

WIND SHELTERS.

Our illustration is of an unconventional summer-house erection. It is called a wind shelter, and is an important adjunct to the garden furniture, so-called, in these days of open-air life. This severely plain structure revolves round upon an

applying it with an Abol Syringe. The work is best done in the evening or early morning.

J. CROOK.

THE EARLIEST POTATO—RING-LEADER.

In many gardens earliness is important. Even when the gain is only a few days the grower has a considerable advantage, and, as at this season many of your readers are interested in this vegetable, it may not be out of place to note the value of Sutton's Ringleader for earliest supplies. For years I have grown new varieties to test their earliness and quality, and for some years Ringleader has been our earliest tuber. I do not say it crops as heavily as Ninety-fold, but it is earlier. This year we lifted Ringleader from a south border on June 6, but this is a few days later than a previous record. When the season is considered it is a good one. Of course, this only refers to this part of the country (Brentford). Doubtless near the coast in the south it could be had fit for use in May. Ringleader is a white-fleshed tuber, and, unlike some new Potatoes when quite small, it is

serve no useful purpose to name special sorts that have failed, but they are noted for their earliness, and out of three sowings we did not get a dozen bulbs. One expects at times the earliest sowing to run, as the plant at the start receives a check, but this should not happen to later crops sown in March. Later sowings of Snowball are excellent, but this variety was not sown earlier. I shall give it a trial with the earliest sorts another season.

G. W.

PEA MAY QUEEN IN FRAMES.

MANY cannot grow early Peas under glass or in pots, but my note more concerns the variety May Queen in ordinary frames just given protection at the start. When grown in this way the return is well worth the cost of labour and space. There are now so many good varieties to select from, and especially the first earlies, that to mention any particular one for earliest supplies may not be necessary. As the season of gathering is an important one, any variety only a few days in advance of others is worth more notice. May Queen sown in cold frames in February gave good pods the last week in May. The seedlings were planted out on a sheltered border, and grown in frames from the start. There are other advantages that Peas of this type have over others, and one is the pods are a good size. The Peas in addition have a good Marrow flavour. The only objection to frame culture I have is that May Queen is a trifle tall (3 feet), but this is soon met. We stop at 2 feet, keeping the points pinched. This done early flowering is encouraged and the formation of pods. It is a most valuable variety for first crop in the open.

G. W. S.



A WIND SHELTER IN A SURREY GARDEN.

axle, and may be moved by a child, with the result, of course, that it can be placed so as to give comfort to those within—a grateful boon to invalids, to whom a life-giving medicine is fresh air and sunshine.

THE KITCHEN GARDEN.

THRIPS AND FLY ON PEAS.

IN hot, dry summers these are troublesome to garden Peas, frequently ruining the growth and the crop. The fine Marrow varieties, so useful for late gathering, suffer most. It is in the leaf-tips that the insects secrete themselves, drawing out the juices of the young leaves. For years our crop suffered in this way until we tried syringing the growth early with Abol Insecticide, giving two applications. Care is needed to force the wash into the curled leafage. We use it now every year on our late crops with the best results. We use he wash at a temperature of from 85° to 90°,

dry when cooked and the quality is excellent. It is very distinct; the tubers are long and the eyes very shallow, with a dwarfish haulm. It is valuable for a private garden, as it is a success in pots or frames. For years we grew Sharpe's Victor for earliest dishes, but Ringleader for some years has given us better results, and it is the earliest variety I have grown.

G. WYTHES.

TURNIPS BOLTING IN SPRING.

This season, although not at all a bad one for most vegetables, was the worst for years as regards the early Turnip supply; indeed, a few years ago, when the soil was frost-bound well into March, we had more reliable crops in May. I am aware that much depends upon the variety, the soil, and season, but it has often occurred to me that there must be other reasons for this bolting. Does old seed run or bolt worse than new? I am well aware with such vegetables as Peas and fleshy seeds that age acts most injuriously, as old seed is less vigorous, and with a quick-growing crop like Turnips the seed may influence the crop. It would

have invariably proved satisfactory. The all-important matter is to begin as early as sufficient runners are to be obtained. In my opinion the method of layering the runners in small pots is better either than rooting them in turves or in large pots; they are easily removed without their roots being damaged at all. As to soil, we have found nothing more suitable than good loam passed through a sieve, and a little sand added is an advantage. It is advisable to have all the small pots ready before layering begins. Keep them in the shade, so that the soil does not become baked by the sun.

Five runners from each plant are quite enough as a rule. It is much more satisfactory to select a regular number from many plants than a lot from some and few from others. If too many runners are taken from the same plant they are liable to become blind. If sufficient plants can be obtained by so doing, it is advisable to layer only one plantlet upon each stalk or runner, and that one nearest to the parent plant is generally the best. It happens very often that when two plants upon the same runner are inserted one of them grows

THE FRUIT GARDEN.

STRAWBERRY LAYERING.

THIS important work should be no longer delayed, for if good well-rooted plants are to be obtained by autumn, either for making a plantation or for potting, it is essential to have the layers rooted early. Some gardeners keep a number of plants solely for the purpose of producing layers; they are not allowed to bear fruit at all. No doubt there is a good deal to be said for this plan, but unfortunately most persons are obliged to take their runners from plants which have fruited, and really this seems to make little, if any, difference in the vigour of the young plants. I have for many years taken layers from fruiting plants, and they have invariably proved satisfactory. The important matter is to begin as early as sufficient runners are to be obtained. In my opinion the method of layering the runners in small pots is better either than rooting them in turves or in large pots; they are easily removed without their roots being damaged at all. As to soil, we have found nothing more suitable than good loam passed through a sieve, and a little sand added is an advantage. It is advisable to have all the small pots ready before layering begins. Keep them in the shade, so that the soil does not become baked by the sun.

away vigorously to the detriment of the other, which is weak and useless. Great care is necessary not to select blind runners, i.e., those whose centres have apparently ceased to develop. It is almost impossible to avoid layering a few, because some of them become blind after layering, but generally the useless ones can be detected at layering time. They should, of course, be discarded, for nothing is more disappointing than to find many blind plants after all the trouble of rooting and repotting them. An easy way to fasten the runners in the small pots is by means of raffia looped loosely round the stalk near the plantlet, and pressed into the soil with a stick, thus pressing the base of the tiny plant to the soil. Keep them well supplied with water; otherwise they will not make satisfactory progress. They will soon become well rooted if left moist; the evening is the best time to water, although in the hottest weather watering may be necessary two or three times a day.

A. H. P.

CORRESPONDENCE.

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

GARDEN PINKS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The common fault with many of our garden Pinks is that they split the calyx, and the petals, instead of displaying themselves to the best advantage, fall about in loose confusion. A keenly imaginative writer once designated such flowers as attractive floral cataracts, but he failed to make converts to his opinion. A white Pink with a non-splitting calyx named Mrs. Lakin is, I think, just the half-way Pink the writer of the article on page 33 of THE GARDEN would term a useful plant. It came among some seedlings of a laced variety, it has well formed, smooth-edged petals, not too many of them, and does not split its calyx; it is dwarf in growth, compact in habit, and free blooming, and it has only a faint trace of colour in the centre. Some of the best rose-coloured Pinks ever raised were Derby Day, Newmarket, and Lord Lyon; they were produced by a Mr. James Clarke of Bury St. Edmunds. They were all of pleasing shades of colour, had smooth-edged petals, good calyces, and were not too full of florets. Lord Lyon is a delightful rosy pink, but of a delicate constitution, a defect which characterised the other two in some degree; I am afraid it would be difficult to obtain either of them true to character. One of the best of garden Pinks is known as Pheasant Eyed, and it has been distributed under the name of Samuel Barlow; at any rate the latter, no doubt, put into commerce in perfect good faith seems to be identical with it. It has handsome medium-sized blossoms, having a bright claret-crimson centre and notched white florets. It does not split its calyx so badly as some others. The black and white Pink is a florist's variety with a dark centre and solid, well-formed, smooth-edged white petals. Formerly there used to be a class for black and white Pinks at Pink shows, but the type, as estimated by the florist, appears to be lost to cultivation. I have endeavoured to obtain it in Lancashire but without success. If restored to cultivation it is likely to reappear as a seedling among laced varieties.

I cannot share the opinion of the writer that the florists' laced Pinks have a muddled appearance in the garden. My collection of Pinks have shown nothing so attractive as a small plantation of laced Pink John Ball, and it is the admiration of everyone who has seen it. I do not advocate the indiscriminate use of laced Pinks in the garden; such large flowered varieties as those of Boiard and Empress of India, with their straggling habit of growth, are not desirable; but it is very different with such varieties as John Ball, Mrs. Darke, and Modesty, as types of laced garden Pinks. A line of Mrs. Darke, the flowers handsomely laced, was one of the border attractions at Old Warden

Park on the occasion of a recent visit, and I could quite understand Mr. W. C. Modral's preference for it. Much can be said in commendation of the laced Pink as a border flower.

R. DEAN.

DIMORPHOTHECA ECKLONIS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The communication on the above plant in THE GARDEN of July 16, page 39, will be read by many with considerable interest, and will probably lead to the more general use of the plant for outdoor cultivation, under which condition it seems more suited than for the greenhouse. I can fully endorse what is said about the sturdiness of its growth and the profuseness of its flowering when planted out of doors. I tried the experiment this spring with some plants raised from seed sown late in the spring of 1903 in pots kept in an ordinary living room. All the seeds germinated rapidly, and quite late in the autumn formed plants some 2 feet high; but they showed no signs of flowering. In March of the present year I planted them in the open garden, in a border facing south-west, but shielded from the north and east, when they at once began to form bushy plants, and have borne a profusion of flowers. It is apparent that the Dimorphotheca may thus become an important summer-flowering plant for the open garden. With reference to what is said about the confusion of common names with those of Gerbera Jamesoni I have found that Dimorphotheca Ecklonis is usually, if not always, quoted as the Transvaal Marguerite, while Gerbera Jamesoni is known as the Transvaal Daisy.

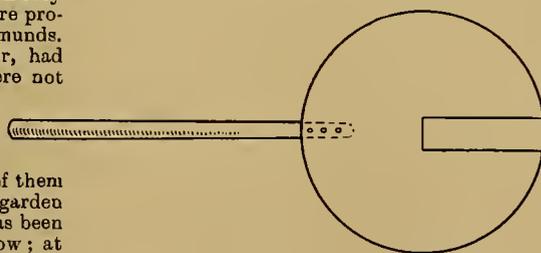
JOHN R. JACKSON.

Claremont, Lympstone, Devon.

CATERPILLARS ON GOOSEBERRY BUSHES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I think it is rather late to try Mr. Wythes' remedy with Hellebore powder as the fruit is nearly ripe. My gardener thought, however, of a plan which has been most successful. Cut a piece of tin in the shape of a large frying-pan, fix a long wooden handle, and cut a slit out from the circumference to the centre, thus:



Then smear the tin with tar, and place it under the bush, using a forked stick to shake the branches, when the greater number of the caterpillars will fall into the trap.

AUBREY SPURLING

NOVEL POTATO PRODUCTION.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 44 of THE GARDEN for July 16 reference is made to what you term "a recently discovered new system of growing young Potatoes during the autumn and winter." To my certain knowledge the system you describe was practised regularly as early as 1844. At that date I was employed under my late brother in the gardens of Wrotham Park, Barnet. The largest tubers of the current year's crop were regularly preserved till the September of the following year in as cool a place as possible, and kept from sprouting until they were buried in finely-sifted dry mould. The position chosen for their growth was in a shed where there was always a genial heat from two furnaces. The young tubers were always ready by Christmas. If my memory serves me rightly, I wrote of this subject many years since in, I think, the *Journal of Horticulture*.

DAVID THOMSON.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The notes on how to obtain new Potatoes direct from old tubers in THE GARDEN of July 16, page 44, are very interesting, but the plan of doing so is by no means a new or recently discovered one. That Mr. Stanton found it out quite accidentally I can readily believe, since new tubers are often produced in the manner illustrated and described on old Potatoes that have been stored for a year or so under suitable conditions. In THE GARDEN of February 15, 1879, I drew attention to this fact in a short note, with an illustration, after seeing new Potatoes thus grown in a Mushroom shed at Burghley House, near Stamford, by the late Mr. Richard Gilbert, who was well known as a past-master in vegetable culture.

F. W. BURBRIDGE.

THE INDOOR GARDEN.

BOUVARDIAS.

MUCH diversity of opinion prevails as to the best method of treating these plants for autumn and winter blooming. Some prefer to plant the whole of their stock out, while others keep all in pots and grow them in cold pits during the summer months. I have for several years previous to the last two planted out the whole of my stock, lifting the plants and potting again towards the middle of September. I have now abandoned the practice of planting out the established specimens of such kinds as elegans, Alfred Neuner, President Garfield, and Vreelandi, and now keep them in pots throughout the whole of the year and find they answer much the best, as they too often make a quantity of sappy growth when planted out just at the time of lifting, and they generally feel the shift very much. Such kinds as Humboldt and jasminoides I still plant out and lift again in autumn with as large a ball of earth as possible and utilise one of the old Melon beds in a heated pit for planting them in. Plants lifted in this way do not feel the shift in the least, and they go on growing and producing their bunches of snowy white flowers until near Christmas. For several years I have adopted this plan, and so well am I pleased with the result that I commend it to the notice of all who appreciate the larger flowering kinds of Bouvardias. The greatest drawback to this system of culture is that when the plants have ceased to flower, say about mid-winter, they require to be cut back closely and repotted, and if great care is not taken to put them into brisk heat to start, the losses amongst them will probably be considerable. I have been so disappointed with the meagre supply of flower from the varieties last named when lifted and potted owing to the check given by the disturbance of the roots in getting them into pots that I abandoned it, and am well pleased with the result of planting in pits. The cuttings taken in spring for keeping up the stock of plants I also plant out in a frame from which the bedders have been removed, or a Violet frame, first making the soil in good condition for their reception, and finishing up with a good covering of finely-sifted soil, with a good portion of sand and leaf-mould intermixed. The young plants should be planted into this bed and given a good watering, the lights put on, and shaded for a short time. After they have made a good start the lights should be removed, and the young plants have the points of their shoots pinched out occasionally. In this way they make fine specimens for 5-inch and 6-inch pots. Although these young plants receive a slight check in potting up, they soon recover and make a good succession to those grown in pots the whole of the season.

Those grown in pots are what we mainly depend on for our supply of blooms, and though they do not look so vigorous in the autumn when taken into their flowering quarters, they flower at the point of every shoot. An intermediate temperature suits them best, and well-established plants are greatly benefited by occasional doses of liquid manure and light surface dressings of some approved fertiliser. It is not well to syringe

overhead when there is much bloom expanded, but when there is none an occasional syringe in bright weather will greatly benefit the plants.

After they have done blooming, which, if properly treated, will not be until the spring months, they should be cut hard back and placed in a good temperature to break, after which they should be shaken out and repotted into as small pots as they can be placed, to be subsequently potted into their flowering sizes, using an open compost consisting of loam, leaf-soil, a little peat, and coarse silver sand, well draining the pots and potting firmly. This will cause the plants to make sturdy growth. A frame is the best place for them until they are well established, after which an open situation on a bed of cinder ashes will suit well. Here they may remain until housed at the beginning of September. W. C. C.

CACTUS-FLOWERED PELARGONIUMS.

THE first double-flowered Pelargoniums of the zonal section made their appearance in the latter half of the sixties, and at that time attracted much attention. These early forms were very vigorous in growth, which feature after a while gave way in favour of more bushy varieties, of which good well-flowered examples could be grown in comparatively small pots. After this they became popular as market plants. Within the last twenty years innumerable varieties have been raised, but there was no marked break away to chronicle till the year 1900, which saw the advent of a very distinct form, viz., Fire Dragon, a sport, I believe, from F. V. Raspail. In Fire Dragon the flowers, though double, are composed of narrowish petals, which give a starry appearance to the bloom very suggestive of a Cactus Dahlia, hence the term Cactus-flowered Pelargoniums being applied to this variety and to the newer sorts in the same way. At the Holland House show a group of new varieties was staged by Messrs. W. and J. Brown of Peterborough, and very pretty they were, being in general appearance so distinct from the ordinary double-flowered zonal Pelargoniums. A selection of the best shown would include Mrs. J. Brown, deep scarlet; J. R. Greenhill, soft pink; Lady Roberts, salmon-pink; The Countess, deep salmon; and Scarlet King, bright scarlet. All appeared to be characterised by a dwarf bushy habit of growth, and, while well adapted for pot culture, they are also decidedly promising for bedding purposes. No doubt they will receive a good trial when better known and more generally distributed.

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, 3, Southampton Street, Strand, London.

Mr. S. W. Fitzherbert sends from Kingswear, South Devon, flowers of several interesting plants. Among them are four early Gladioli of bright colourings, namely, Queen Wilhelmina, Red Prince, Crimson Queen, and Saumarez. Our correspondent writes: "I have fifteen varieties of these early Gladioli, not counting G. tristis, G. vinulus, and G. Colvillei. The Bride does so well and increases so fast here that I determined to try other named varieties. Planted in light soil mixed with sand all but two have greatly increased, Rose Queen having produced fifty-six spikes from twelve bulbs planted in the autumn of 1902." Mr. Fitzherbert also sends the pretty orange-coloured

Cypella Herberti, which is blooming very freely at Kingswear and daily expanding dozens of flowers, and Digitalis obscurus, on which a note appeared in THE GARDEN on the 9th inst.

FLOWERS FROM SOUTH DEVON.

"L. H." sends from Plymstock many interesting flowers, and from a limestone soil, which suits most things, but is too dry for some good plants. Very fine are the flowering shoots of the beautiful Linaria macedonica, which is described as excellent for cutting and very showy in the border; the useful Galega officinalis alba or white Goat's-Rue, Clematis recta (one of the best of its family), the Prickly Ivy (Smilax aspera), and Dahlia Zimpani, which is also called Cosmos diversifolius, and is quite hardy except for a covering of ashes in winter; its colouring is remarkable, an intense purple, almost black, hence the popular name of Black Dahlia.

FLOWERS FROM CHRISTCHURCH.

Mr. Maurice Prichard sends from his interesting Riverslea Nurseries, Christchurch, Hants, flowers of the following: Kniphofia Buttercup, a pretty form, with a small, dense head of flowers of a pure yellow colouring. A small group of this on the rock garden must be full of charm. Campanula versicolor, a species from Greece, which is not common in gardens; it is very distinct, the flowers appearing in a long raceme, and individually have a quiet and pleasant colouring. The prevailing tone is blue, passing to white, with deep purple base. Its long season of blooming—July to September—is worthy of note. Campanula (hybrid) Isabel is a warm purple colour. Mr. Prichard does not state whether this has been raised at Christchurch, but whatever its origin, it is a good garden plant for its fine colour.

OBITUARY.

MR. DAVID MITCHELL, EDINBURGH.

MR. DAVID MITCHELL, who died recently at Comely Bank, Edinburgh, has been for so long in practical retirement that many of the present generation of gardeners were unaware that he was for some time one of the most prominent Scottish gardeners. Mr. Mitchell, who was in his eightieth year, was a native of Dundee, and after filling several minor appointments, became head gardener, about 1860, to the then Duke of Hamilton at Hamilton Palace. In this important appointment, then one of the leading ones of its kind in the north, Mr. Mitchell did excellent work some forty years or so ago. Extensive improvements were carried out, the whole establishment being practically overhauled and remodelled in the most complete and skilful manner. So satisfactory were Mr. Mitchell's plans when carried through that his assistance was sought when a number of other places in the neighbourhood of Hamilton and elsewhere were being laid out to design and carry out the works there also. His skill as a cultivator was equally great, and the many prizes carried off by produce from Hamilton Palace at the leading Scottish shows evidenced the mastery of the details of cultural practice possessed by Mr. Mitchell. Mr. Mitchell afterwards entered the nursery and seed trade in Edinburgh. He was buried in the Dean Cemetery, Edinburgh, on the 18th inst., in the presence of a large number of friends.

SOCIETIES.

A SWEET PEA SHOW.

THE National Sweet Pea Society held its fourth annual exhibition at the Crystal Palace on the 20th and 21st inst., and although some exhibitors complained that the very hot weather had somewhat spoilt the colour of their flowers, a charming display resulted. It was difficult to trace a distinction between some varieties with different names, as shown in bunches, but this was owing to the fact that the hot sun had destroyed their characteristic delicate tints. Chief interest, of course, centred in the new varieties, and among these one was conspicuously prominent. It

was shown by Mr. Henry Eckford, Wem, and is named Henry Eckford. The colour may perhaps be best described as salmon orange tinged with rose. It is quite distinct from anything shown before. In a special class for nineteen bunches of Sweet Peas, to which certain varieties must be shown, Mr. A. G. Hysman, Hapsford House, Frome, won the first prize. His best yellow was the Hon. Mrs. Kenyon; the best pink was Lovely, Duke of Westminster the best purple, and Dorothy Eckford the best white. In the second prize exhibit, from Mr. Silas Cole, Northampton, the lavender-coloured Lady Grisel Hamilton was very beautiful. There was a class in which only one variety of each colour as given in the society's classification tables was to be shown, the collection to consist of nineteen varieties. Thus all those shown were of perfectly distinct colouring. Messrs. I. House and Son, Westbury-on-Trym, won the first prize. Scarlet Gem, Mrs. Walter Wright (rich blue-purple), Senator (purple flake), and Lottie Eckford (white and lavender) were good sorts. In their first prize exhibit of thirty-six bunches Messrs. Isaac House and Son, Bristol, had Miss Willmott (rich salmon pink), Jeanie Gordon (fawn and rose), Salopian (crimson), and Othello (maroon). Mr. C. W. Breamore, Winchester, in his first prize exhibit of twenty-four bunches showed some beautiful sorts, as Agnes Johnston (fawn and blush), King Edward VII. (crimson), and Lottie Eckford (light blue and white). In the amateur's classes Mr. A. F. Wootten, Croft House, College Road, Epsom, won the first prize for twenty-four bunches, distinct, the primrose Hon. Mrs. Kenyon, blue-purple Mrs. Walter Wright, and Countess Spencer rich pink being the best. Dr. Boxall, Abinger Common, Dorking, had the best eighteen bunches, and Miss Beatrice Boosey, The Pines, Bickley, showed the best twelve bunches.

The classes for two bunches of Sweet Peas of one colour were very interesting. It was easy to see at a glance which are the best varieties in the different colours. For instance, Sadie Burpee and Dorothy Eckford were the best whites, Scarlet Gem and King Edward VII. the best crimsons, Janet Scott and Mrs. Knights Smith the best pinks, Miss Willmott and Lady Mary Currie the best orange shades, Lady Ormsby Gore and the Hon. Mrs. Kenyon the best yellows, and Lady Grisel Hamilton and Burpee's New Countess the best lavender. Sweet Peas lend themselves delightfully to table decoration, and in the open class Mrs. Frank Brewer, Beckley, Sussex, won the first prize with a simple arrangement of lavender and rosy fawn-coloured varieties.

NON-COMPETITIVE.

In the group from Hobbies, Limited, Dereham (gold medal), Rose Dorothy Perkins was a pretty feature, and there were Carnations and Sweet Peas in great variety. Among the flowers shown by Messrs. Henry Cannell and Sons, Swanley, Kent (large silver medal), Chrysanthemum tricolor, with large creamy white blooms, the dark centre surrounded by a ring of yellow, was very striking. Godetia grandiflora rosea fl.-pl., too, was good. Mr. Henry Eckford, Wem (silver medal), showed a lovely lot of Sweet Peas, which included such new ones as King Edward VII. (bright crimson), Gracie Greenwood (rich pink), Emily Eckford (rich deep blue), and Scarlet Gem (crimson-scarlet), all of which should be in every garden. Messrs. T. S. Ware and Son, Limited, Feltham (silver-gilt medal); Messrs. Baker, Wolverhampton (gold medal); Mr. H. J. Jones, Lewisham (gold medal); and Mr. Charles W. Breamore, Winchester (silver-gilt medal), each exhibited splendid displays of the best varieties of Sweet Peas. Messrs. John Peed and Son, West Norwood (large silver medal), sent Gloxinias in many lovely sorts; and Messrs. G. Stark and Son, Great Ryburgh, Norfolk (silver medal), and Messrs. J. Laing and Sons, Forest Hill (silver medals), showed Sweet Peas.

CARNATIONS AT SOUTHAMPTON.

JULY 22.

"It has been a real pleasure to be here to-day to assist at your beautiful show; everyone has received us so nicely and arranged everything so well, and the surroundings are so charming, that it is a real good outing. Some time ago we were afraid the excellent Carnation shows that have been held at Southampton for the last six years would have to be abandoned, but, thanks to the enterprise of the council of the Southampton Royal Horticultural Society, that danger has been averted, and our pleasure has been indeed great to-day to see the vigour that has been put into the matter. We heartily congratulate the council, the special committee, Mr. Garton, and your able secretary, Mr. Fudge, on the splendid exhibition you have got together. A more effective Carnation show will not be seen in England, and as regards quality some of the blooms could not be beaten at Birmingham, and I could not give you higher praise than that." So remarked a gentleman at the lunch in replying to the toast of "The Judges." Notwithstanding that the blooms are backward in the Midlands and that some exhibitors held back their flowers for the Palace show, the aggregate number of entries was nearly 100 in excess of last year.

In the class for twelve flake and bizarres, distinct, Messrs. Pemberton of Harden Nurseries, Boxwich, were first with a good lot, including W. Preacott (fine), Gordon Lewis, Thala, J. S. Hedderley, Geo. Reed, Sportsman (good), Geo. Melville, R. Houlgrave, and Damon; second, Mr. Martin R. Smith, Warren House, Hayes, his best being Flairs, R. Houlgrave, Gordon Lewis, Damon, and Lord Nelson.

In the class for six of the same section Mr. J. J. Sheldon, Churchfields, South Woodford, was placed first with J. S. Hedderley, Guardsman, Master Fred, Merton, R. Houlgrave, and W. S. Kiroo; second, Mr. James Fairlie, Avenue Road, Acton, W.; third, Miss E. Best, Andover.

For twelve white ground Picotees, distinct, Messrs. Pemberton again secured first with a perfect stand of flowers, including a grand bloom of Little Phil; second, Mr. Hayward Mathias.

For six of the same group Mr. J. J. Keen of Avenue Road, Southampton, was well to the front with Little Phil, Gany-mede, Jno. Smith, Fortron, Harry Kenzer, and Lady Louisa second, Mr. E. H. Buckland, Southgate Ho, Winchester.

For twelve yellow ground Picotees, distinct, Mr. Martin R. Smith was first, his blooms including Queen Mab, Mariana, Vesena and Mrs. W. Heriot, both fine, and Dalkeith; second, Mr. E. J. Wootten; third, Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath.

Six blooms of the same: First, Mr. J. J. Keen, with even blooms of Pilgrim, Gertrude, Richelieu, Mrs. Durrant, Child Harold, and Countess Stratham; second, Mr. James Fairlie.

For the class for twelve fancy Carnations Mr. Martin R. Smith came out strong, securing first with good blooms; second, Messrs. Phillips and Taylor.

For six of the same there was keen competition, Mr. James Fairlie securing first with Vnltaire, Pagsin, Paladin, Amphron, Oakley, and Hidalgo; second, Mr. Buckland; third, Mr. E. Charrington, Limpsfield, Surrey.

For twelve Carnations, selfs, Messrs. Phillips and Taylor secured first with fine blooms, including Mrs. M. V. Charrington, Hildegarde, Regina, Dndley Stuart, and Tregonda; second, Mr. Martin R. Smith, with blooms little inferior to the first.

For six blooms, selfs, there were thirteen entries: First, Mr. J. J. Keen; second, Mr. Flight; third, Mr. Fairlie; fourth, Mr. Rowberry.

The point medals offered by Mr. James Douglas in the foregoing classes were won as follows:

Silver-gilt medal for most points in the classes for twelve blooms, Mr. Martin R. Smith.

Silver medal for most points in the classes for six blooms, Mr. James Fairlie.

Bronze medal for most points by an exhibitor who has never won a first prize at Southampton, Mr. J. J. Sheldon.

For single blooms there were eighteen divisions, each with four prizes. A very large number were staged, giving the judges some trouble to select the best, the first prizes being secured as follows: Scarlet bizzarre, Mr. Keen with Philgram; crimson bizzarre, Mr. Fairlie with J. D. Hextall; purple flakes, Mr. Fairlie; scarlet flakes, Mr. Fairlie with Sportman; rose flakes, no award. Picotees, heavy-edged red, Mr. Keen; heavy-edged purple, Mr. Fairlie with Amy Robart; heavy-edged rose, Mr. Pemberton with Little Phil; heavy-edged scarlet, Mr. Pemberton with W. H. Johnson; light-edged red, Mr. Pemberton; light-edged purple, Mr. Buckland with Lavinia; light-edged rose and scarlet, Mr. H. Mathias with Fortrose; heavy-edged yellow ground, Mr. Wootten with Mazarin; light-edged yellow ground, Messrs. Blackmore and Langdon with Mrs. Durrant. Selfs, any colour, Messrs. W. Pemberton and Sons with Much the Miller.

Fancy, yellow ground: First and second, Mr. Martin R. Smith, with King Solomon. Fancy, white ground: Mr. Keen with Orion.

The prizes for the premier blooms, selected from the entire exhibition, were awarded as follows: Carnation, bizzarre, Mr. J. J. Keen with Robert Holgrove. Carnation, flake, James Fairlie with Gordon Lewis. Carnation, self, Messrs. Pemberton and Son with Much the Miller. Carnation, fancy, Mr. Martin R. Smith with King Solomon. Premier Picotees, white ground, Messrs. Pemberton and Son with Lady Louisa. Premier Picotees, yellow ground, Mr. Martin R. Smith with Vesena.

The classes for undressed flowers, staged in vases, made a good show, and no doubt will be much better another season, when exhibitors have learned how to put them up effectively. For the twelve vases of distinct varieties of self or fancy Carnations or yellow ground Picotees, six in each, there were only three entries, the prizes being secured, in the order named, by Mr. Wootten, Messrs. Blackmore and Langdon, and Mr. W. Garton, jun. No fault could be found with the effective arrangement of these.

In the amateurs' class, for six vases, four blooms in each, there were five entries. First, Mr. Flight, flowers nicely set up; second, Dr. Yeo of Alverstoke; third, Mr. C. A. Linzee. The prizes offered by Mr. W. Garton, jun., for single vases, three blooms of one variety, drew a large entry, just on sixty vases being staged in the six classes. The principal winners were, for white, bluish, or pale pink: First, Mr. Martin R. Smith; second, Messrs. Phillips and Taylor; third, Messrs. Blackmore and Langdon. Rose, salmon, or scarlet: First, Mr. James Fairlie; second, Mr. Martin R. Smith. Yellow, buff, or terra-cotta: First, Mr. Martin R. Smith; second, Messrs. Phillips and Taylor. Any dark self: First, Mr. E. J. Wootten; second, Mr. Fairlie. Yellow ground Picotees: First, Mr. M. R. Smith; second, Mr. Wootten. Fancy Carnations: First, Mr. Wootten; second, Messrs. Blackmore and Langdon. The silver medal presented by Mr. James Douglas, Great Bookham, for the most points in the above classes was secured by Mr. Martin R. Smith.

Dinner-table arrangements, the decorations consisting entirely of Carnations, stands of Carnations, and bouquets of the same, were all excellent, Miss Minnie Snellgrove once more securing the honours with her table, which was very elegantly arranged, Mrs. Wootten being deservedly first for the stand with a light arrangement of yellow flowers. Two very handsome bouquets were set up, the first prize being awarded to Miss Wills, 198, Above Bar, and the second to the Fruit and Flower Growers Company, Above Bar.

SWEET PEAS

made a grand show, the competitive and trade exhibits occupying all one side of the spacious pavilion and a good part of the other. The table decorations were especially attractive, Miss Snellgrove being again successful with a very light and beautiful arrangement.

There was a large number of exhibits not for competition, foremost amongst them being that from Mr. W. Garton, Roselands, Southampton (gardener, Mr. J. Martin), who exhibited a very fine group of Malmaison Carnations, also a group of Liliun auratum arranged with Ferns and light Palms, for which he was awarded a silver-gilt medal, and the committee are indebted to that gentleman for the fine Palms and other decorative plants that added so much to the effect of the show.

Messrs. B. Ladhams, Limited, of the Shirley Nurseries, staged what was generally considered the finest exhibit they have ever put up, being awarded the society's gold medal,

their bank of flowers occupying the whole of the front of the orchestra. Most noticeable were Romneya Coulteri, Coreopsis Eldorado, Statice speciosa, Perpetual Pinks, Gaillardia (oculata race in ten varieties), Peostemon Newbury Gem, Liliun chalcidonicum and L. testaceum.

Mr. Breadmore of Wiochester had a very bright exhibit of Sweet Peas, containing some 150 varieties, for which they were also awarded a gold medal.

Silver medals were awarded to Messrs. Blackmore and Langdon for a very attractive stand, containing some fine Begonias and Carnations; Messrs. Jones and Sons, Shrewsbury for Sweet Peas and Carnations; and Messrs. Toogood and Sons, Southampton, for a very fine exhibit of Sweet Peas.

Awards of merit and cultural certificates were given to Messrs. Cuthush and Son, Highgate Nurseries, for Carnations; Mr. James Douglas, Great Bookham, for Carnations; Jones and Sons, Shrewsbury, for Sweet Peas; and W. H. Rogers and Son, Limited, for a collection of plants. The other non-competitive exhibits were from Mr. W. Garton, jun. (group of Carnations arranged with Ferns and foliage plants), Mr. E. Wills, Shirley (miscellaneous collection), H. Dymot (Petunias), Charles Prince, Ryde, Isle of Wight (seedling Carnation), and Mr. J. Bull, Birminghams (collection of Violets).

Certificates were awarded to Mr. Douglas for new Carnations Duke of Norfolk, Kaffir, and Etana, and to Mr. W. F. Linney for a very pretty seedling perennial Sweet Pea.

The receipts were a record for a Carnation show, being £12 more than last year.

SALTAIRE AND SHIPLEY SOCIETY.

THE second annual show of the above was held in Saltaire Park in glorious weather. The committee had increased the number of classes, which brought a larger number of exhibitors and entries, so that the exhibition proved considerably better than that of last year. The day was an ideal one, but the show did not appear to secure the patronage it deserved and which should be obtained as it becomes better known. Roses and other cut flowers were the predominant feature, and the local exhibitors staged many exhibits, showing good culture.

In the Rose classes the first prize for forty-eight blooms, not less than thirty-four varieties, was won by Messrs. A. Dickson and Sons, Newtownards. Some of the best blooms were Mildred Grant, Bessie Brown, Duchess of Westminster, Her Majesty, Erin, Duke of Wellington, Caroline Testout, and Marie Baumann. Second, Messrs. J. and R. Calam, with smaller but well-coloured blooms. For thirty-six blooms, in not less than twenty-four varieties, and for twenty-four blooms, eighteen varieties, Messrs. A. Dickson were again first. For twelve dark Roses, distinct, the Irish exhibitors again had the best flowers of such as Alphonse Soupert, Horace Vernet, A. K. Williams, and Charles Lefebvre. Messrs. J. and R. Calam were second. The last-named were first for twelve light-coloured distinct varieties. In the interesting class for twelve new Roses Messrs. Dickson again showed best. Among the sorts shown were Cambell Hill (a charming pink variety), Lady Ashton Cunningham, and Florence Pemberton. For twelve Teas or Noisettes and twelve varieties of garden Roses Messrs. Alex. Dickson won the first prizes. Among the latter were bunches of William Allen Richardson, Marjorie, Liberty, Meta, Killarney, Crimson Rambler, &c. The silver medal for the best Rose was awarded to Messrs. Dickson for a bloom of Mildred Grant.

Mr. G. H. Mackereth, Ulverstone, showed the best Sweet Peas, and Mr. A. W. Whitelock sent the finest hardy herbaceous flowers.

In the local classes, open to residents within twenty miles, Mr. J. Midgley was the most successful exhibitor.

In the amateurs' classes Mr. D. J. Law was first for twenty-four Roses, winning the silver medal for the premier bloom in this section with Bessie Brown, the same exhibitor was first for twelve and six blooms. Mr. A. H. Rigg won the National Rose Society's bronze medal for the best bloom with Killarney.

Groups not for competition were arranged by Mr. G. Ward, Ferriehurst, Shipley, Messrs. R. Eichel, and W. Kershaw. Messrs. W. Shand and Sons, Lancaster, had an extensive and interesting table of herbaceous cut flowers. To Mr. E. Wright, the secretary, a word of praise is due for his untiring efforts.

HALIFAX FLOWER SHOW.

THIS show was held in the charming grounds of Elm Wood, by the kind permission of C. Holdsworth, Esq. The exhibits were fully up to the usual standard, those of Messrs. R. Harkness and Co. being especially fine throughout. A special feature of this show consists of the bouquets of Roses.

In the large class, for sixty blooms, Messrs. R. Harkness and Co., Hitchin, won the first prize with a very fine lot. Some of the choicest blooms were A. K. Williams, Gladys Harkness, Horace Vernet, Mrs. Sharman Crawford, Mme. E. Verdier, Harrison Weir, Ben Cant, Mrs. J. Laing, Bessie Brown, Helen Keller, and Marie Baumann. Second, Mr. H. Drew, Longworth, Berks; third, Mr. W. H. Frettingham, Beeston. The best bloom in this class, which received the National Rose Society's silver-gilt medal, was a very fine Gladys Harkness. Messrs. Harkness had the best thirty-six varieties, three blooms of each, and Mr. H. Drew sent the best twelve Teas, three blooms of each. Messrs. R. Harkness and Co., who were second in the latter class, were first for eighteen distinct varieties, not less than three trusses of each, and for garden or decorative Roses.

Many fine Roses were shown by amateurs, Mr. R. Parke, Bedale, winning the first prize for forty-eight blooms with a splendid lot. Mr. Boyes, Derby, was second. The best bloom in this section was found in Mr. Boyes' exhibit, viz., Mrs. J. Laing, which was awarded the National Rose Society's silver-gilt medal. Mr. Parke was first also for eight distinct varieties, three blooms of each, and for twelve Teas.

Of growers within twenty-five miles of Halifax, open, Messrs. J. and R. Calam, Wakefield, were the most successful.

Of amateurs within twenty-five miles Mr. D. J. Daw showed best. Some beautiful bouquets of Roses were shown, Messrs. Bottomley and Bunton, Elland, being the most successful exhibitors. Messrs. Harkness and Co. and Messrs. Calam were the chief prize-winners in other Rose classes.

Mr. A. Makin secured the Coop's silver challenge cup in the local amateurs' section for twelve blooms of Roses. The arrangements were ably carried out by Mr. G. W. Wilson, Salterhebble, Halifax.

CROYDON AND DISTRICT HORTICULTURAL SOCIETY.

THE first of the new series of papers arranged for the present session—July to December—was given at the society's rooms, Sunflower Temperance Hotel, and Mr. J. Cutler, Limes Road, Croydon, very ably discoursed on "Earthworms, and their effects on the soil." Mr. Cutler illustrated how beneficial this lowest order of animal life is to the soil we cultivate. The castings considerably help to fertilise the soil, as they are richer in soluble plant food than before. Mr. Cutler gave statistics of the quantity of earth per acre consumed, which amounts to about fourteen tons. Their average length in this country when fully grown is 6 inches, yet in other countries, and notably Ceylon, they grow to 24 inches long and half an inch thick. In England, too, their castings penetrate to as much as 6 feet to 7 feet, so we can understand the great help they are in aerating and creating a constant interchange between the various strata of the soils. Mr. Cutler also spoke of the injurious side of the question. A hearty vote of thanks was accorded Mr. Cutler at the close.

Romneya Coulteri.—I thought it might interest you to see this photograph of Romneya Coulteri from my garden here. I received a small plant two years ago, and from THE GARDEN received instructions how best to grow it, viz., on a sunny grass bank. The man standing by is 6 feet 3 inches high, although not nearly so tall as the plant; the blossoms 7 inches to 8 inches across. I am afraid it is not good enough for reproduction. [Unfortunately, not.—Ed.]—M. F. ARBUTHNOTT, Fairlawn, Paignton.

Centaura suaveolens.—The yellow Sweet Sultan is very useful for cutting. It is grown extensively for market, and is now quite plentiful. It may not be one of the most profitable flowers, but there is always some trade for it, and if only the flowers are kept quite dry they last well; but once wet them they close up, and unless fully exposed to the sun they will not open again. I have found that if laid in the sun without the stems being in water the flowers will keep quite bright, even when the stems are withered up. The white variety Centaura Margarita is also largely grown, and is most useful, as it lasts so well. The pure white flowers are suitable for almost any floral work. These Centaureas succeed best in good loamy ground. Dry weather sometimes proves trying, but it is remarkable that this season they continue to flower well.—H.

Coccoloba grandifolia.—This fine foliage plant is very rarely met with outside a botanic garden, yet when well grown it forms a most striking object, as was exemplified at the recent Holland House show, for in their group Messrs. Veitch exhibited a specimen which attracted a good deal of attention. The plant shown had a single stem about 6 feet high, clothed with massive leaves nearly orbicular, and cordate at the base. These leaves, which are about 3 feet wide and nearly as much in length, are of a stout, leathery texture, and set closely to the main stem, that is, without the interposition of any pronounced stalk. It attains quite tree-like dimensions, and, though a striking plant for a large structure, will soon get too tall for a small house. This Coccoloba is a native of Tropical America, and is said to have been introduced as long ago as 1690, but, as above stated, it is even now rarely seen. There are several species, but they are all comparatively rare in this country, and, apart from that above mentioned, are of no great ornamental value.—T.

Marriage.—The village of Handsworth was bright with flowers and bunting on the interesting occasion of the marriage of Miss Eveline Mary Atkinson, elder daughter of Mr. and Mrs. William Atkinson, Birklands, Handsworth, with Dr. George Crewdson Thomas of Sydenham, and only son of Mr. and Mrs. G. E. Thomas, Oriol House, Bath. A pleasant incident in the gaieties of the celebration was the entertainment by Messrs. Fisher, Son, and Sibray (of which Mr. William Atkinson is well-known as the principal proprietor) of the employees of the firm and their wives. The weather was delightful throughout.

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.—A. R.—A is *Crataegus Azarolus*; B is an American species, probably *C. coccinea*, certainly not *C. Azarolus*. But these Thorns cannot be recognised with certainty in the absence of flowers and fruits.—W. D.—*Gladiolus communis*.—H. E.—*Philadelphus microphyllus*.—A. E. Message.—1, *Spiraea discolor* (better known as *S. arifolia*); 2, *Tecoma jasminoides*.

Malformed leaf (A. MACINDOE).—The malformation of the leaf of *Campanula pyramidalis* is curious but not rare, the same thing happening fairly often. On the specimen sent tiny young leaves and a flower-bud were formed on the midrib of the leaf. The salvia you send is *S. rutilans*.

Use of refuse of acetylene (G. NICOL).—The effect on the crops and soil of some of these large products is so uncertain both in their immediate and future action that I should certainly hesitate to use the refuse from the manufacture of acetylene gas as a dressing for plants, even if mixed as you suggest. I do not imagine it can be of much value under any circumstances for that purpose. I believe it has much the same properties as slaked lime, but has a certain amount of calcium carbide mixed with it.—G. S. S.

Destroying deciduous trees (W. PRICE).—1. This operation is best carried out in winter, as the flow of sap is thus arrested, whereas if done during the growing season the leaves present a miserable appearance before they drop. 2. The flowers of the Lime secrete a quantity of sweet, sticky, honey-like matter, and it is this which drops on the leaves and on the ground underneath the trees.

Grub on Pear foliage (CONSTANT READER).—The grubs on your Pear trees are those of the Pear sawfly (*Selandria cerasi*). They will not do much harm at this season. They make their chrysalides in the earth. Spreading quicklime under the trees would kill any that happened to fall on it. If the attack has been a bad one, it would be worth while to remove about 2 inches of the soil under the trees and burn or deeply bury it.

Dahlias (J. M.).—These now require frequent attention, the extra dry atmosphere which has prevailed of late being against them. Mulching thickly with well-decomposed manure and giving occasional copious waterings must likewise be practised if robust plants and normal well-coloured blooms are expected. Earwigs must now be watched for; although there are as yet no flower-buds of any importance to injure, the pests feed on the foliage and may soon cripple the plants. Some growers use small flower-pots elevated on a stout stick, a small quantity of hay or Moss being put into each pot and these examined daily. We have, however, killed most by placing in the plants 9-inch lengths of Broad Bean stalks, tapping these every morning on the edge of a pail containing boiling water to destroy them.

Grubs in Cyclamen (H.).—The Cyclamen roots you sent were attacked by the grubs of the black Vine weevil (*Otiorhynchus sulcatus*) or its near relative the clay-coloured weevil (*O. pectus*). The parent beetles feed on the foliage of various plants, Vines, wall fruit trees, &c. They lay their eggs at the roots of Primulas, Cyclamens, Ferns, Strawberries, and other soft-wooded plants, on which the grubs feed. When present in large numbers, as they frequently are, they injure the plants very much. From their position at the roots insecticides are useless. The only way is to pick out the grubs from among the roots. The weevils only feed at night, and to catch them the best way is to spread a sheet under the plants attacked during the day, and after dark to enter the house with a bright light. This will startle the beetles and they will often fall; if they do not, give the plants a good jarring shake and search them well. Tie small bundles of hay or moss round the stems; the weevils will creep into them for shelter during the day, and can be caught in them.

Adiantum farleyense failing (J. M.).—It is impossible to say the cause of your *Adiantum farleyense* falling into bad health; certainly it could not have been the manure, as, according to your letter, the plants were going back before that time. Still, if the roots were in a bad state, and that is most probably the trouble, a powerful stimulant such as that given would do more harm than good. An excess of moisture at the roots, or the reverse, may have been the starting point of the trouble, and with the soil probably sour root action has become weaker and weaker till the plants have reached their present state. When once a plant gets unhealthy it is particularly liable to be attacked by scale. The most satisfactory treatment will in all probability be to turn the plants out of their pots, remove as much of the old soil as possible, and replot in a good sweet compost, say equal parts of yellow loam and fibrous peat, with a liberal sprinkling of silver sand. If the roots are very bad the plants may be put into smaller pots, as the young roots do better when close to the side of the pot than in a mass of soil. Before potting any very bad fronds may be cut off, and the scale cleaned from the remaining ones. This operation is best carried out early in

the year, when the plants are just awakening from their winter sleep, and the healthy roots are then very active; but under conditions similar to yours we should not hesitate to replot now, placing them afterwards in the stove. They need to be shaded from the sun, but do best where stood up not very far from the glass in order that they may have plenty of light. Atmospheric moisture is very necessary to the well doing of this Fern. To succeed in the culture of this *Adiantum* it needs a minimum winter temperature of 55° to 60°, as if kept colder than this the plants do not start away vigorously in the spring.

Gladioli (ANXIOUS).—Gladioli will now be making rapid growth, and, provided they get sufficient moisture at the roots, they enjoy a maximum amount of sunshine. Gladioli always pay for an addition of sweet, fresh loamy soil and leaf-mould to the bed or border when planted out in spring, and this can best be done by drawing drills, planting the bulbs, and afterwards filling in with the new compost. Mulching is very beneficial—in fact, imperative—where the plants occupy a warm, sunny position, which they always should do, and, being planted in rows, staking, as a safeguard against rough winds, is best done by fixing a stout stake at each end of the row where they are short ones, and carrying a horizontal rod across from one to the other, afterwards tying each plant to it. Liquid manure the colour of pale ale improves both the size and colour of the spikes, and, where required to remain in good condition for as long a period as possible, a temporary shade may well be erected over them. For church and, indeed general decoration, nothing beats *G. brechenleyensis*.

Genista æthensis (G.).—Flowering during July, and even until August, when the bulk of hardy trees and shrubs is past, this Broom ought, one would imagine, to be one of the best known of the species. But in spite of its great beauty and the lateness of its flowering, it is comparatively rare. Of the Brooms that can be cultivated out of doors in this country, it is the tallest and most tree-like in aspect, growing 15 feet high and forming a main stem 6 inches in diameter. Its mode of growth is somewhat sparse, yet elegant, the thin terete branches being pendulous and bearing scarcely any leaves. What few leaves there are occur at long and irregular intervals on the young shoots, and are each about a quarter of an inch long and quite narrow. The flowers, which are very freely borne, are of a bright yellow, and the plants are in beauty for over a month. The species is a native of Sicily and Sardinia, and one of its habitats is the sides of Mount Etna at altitudes of 3,000 feet to 6,000 feet. It is quite hardy, however, in this country and thrives in almost any soil. Its value as an ornamental shrub may be judged now by numerous specimens that are flowering in the arboretum at Kew.

Pæonies not flowering (W. D.).—These plants as a rule strongly resent removal, and take three to five years to again develop to a flowering stage. You were therefore fortunate in getting any plants to flower in 1903 after planting the previous autumn. As the plants are making "a great show of leaf" we should think all is well. This is discounted, however, by your statement that "the stalks are much thinner," whereas it should be the reverse. Are these thinner stems only on the plants that first flowered, or are they general? If the latter, then planting may be at fault, and you do not say how this was done. Could not you send an average stem growth that we may see the precise condition of it? This, we think, will be the best way to arrive at a more definite conclusion. We suggest this as the time for replanting will soon be here. You may also tell us how the plants were treated when first planted. We would have discouraged the first flowering because the plants had not then obtained a good hold of the soil, and to flower in these circumstances only conduces to after-weakness. Coupled with this, 1903 was not a good year for bud development in these plants, and upon the latter would the flowering or growth this year mainly depend. Before going any further bare the soil from the crown of a plant or two, and if crowns are present of the size of the finger-tip, or even approaching to this, you have not much to fear.

Winter Tomatoes (N.).—The chief reason these do not yield full crops during the early winter months is more often than not owing to not starting the plants soon enough in the summer. Unless strong plants, 3 feet at least in height, are well set with fruit by the end of September, at which time they are taken indoors and placed in their winter quarters, it is hardly worth troubling with them, as they would not repay for the room and attention they require. Sturdy plants should now be ready for placing into fruiting pots. Nothing is gained by overpotting the plants, neither should they have very rich soil, or growth will be too free. Nine-inch pots and only three parts filled with soil will meet the requirements of the plants at first, as they can be top-dressed later on. Pot firmly, as this further tends to promote a sturdy growth. The plants should be stood in a sunny position, but not exposed to wind. A piece of slate should be placed beneath each pot to prevent the roots taking to the ashes or other material on which they are standing, as well as to prevent the ingress of worms. Although the plants are all the better for full exposure to the sun so long as they are copiously supplied with water, it is well to shield the pots from its full force, or many of the roots may suffer. It is easily done if the plants are stood in line about a foot apart by laying a 9-inch board against them, which is better than plunging the pots in ashes. It is better to keep the plants to a single stem, affording a stout stake to each, so that growth can be secured against wind as it develops. If the plants have become rather tall before they are potted, it would be wise to twist the stems round the pots, the object being to induce them to form fruit clusters from base to summit. Although it is considered neither necessary nor desirable to syringe Tomato plants at any time, a slight dewing, say twice a week after a very hot day, tends to keep the plants healthy without the risk of encouraging disease. Manure water will not be required until the plants are well furnished with fruit and this has commenced to swell.

Beech hedges (A.).—The Beech makes an excellent hedge on dry, shallow, or what the country people call a "hungry," soil, and soon gets quite dense. As you are probably aware, it retains much of its foliage, though dead—but yet beautiful with its warm brown colouring—all through the winter. This winter leafage helps to break strong winds. Plant the hedge in autumn, preferably as a dividing line in the garden, and get well-rooted trees that have been moved yearly in the nursery, so that they lift with plenty of fibrous roots. Once the hedge is formed, clip it every year, unless a very high screen is desired. There are several Beech hedges in the British Isles, the most famous, perhaps, being the one at Mickleour, in Scotland. The Copper Beech is rarely used as a hedge, but there is one in the gardens of Ashwellthorpe Hall, Norwich; it is 138 yards long, 8 feet high, and about 5 feet through. It was planted about seventy years ago from seedlings, by the then owner, the Hon. and Rev. R. Wilson. The colouring in spring is very beautiful.

To make a smai pond.—I have a pond well and constantly supplied by springs, falling in level in exceptionally dry times by not more than 2 feet. I am anxious to make another shallow one supplied from it, to serve as a boundary to my lawns, &c., for which the levels are suitable. The soil is sandy loam, with much stone quite near the surface. There is no clay easily available, and I should like some hints about the construction of sides and bottom. I could not afford much wastage of water, but at the same time should like to utilise both pond and margins for suitable planting, therefore I want soil in the pond and damp margins.—W. [Cement, helping the concrete out with the stones that you have handy, the floor and sides of the pond. There is no better way, if no clay is available, and in any case concrete has certain advantages. Consult Miss Jekyll's book "Wall and Water Gardens." There is no difficulty about introducing as much soil on the floor or margins as the plants you wish to grow will require.]

Removing large trees.—We thank you for your kind expressions about THE GARDEN, but it is impossible to assist you unless we have fuller particulars. We give prominence to your letter in the hope that other readers who intend to ask questions may do so in a way to ensure a correct answer. But we can give this general advice about tree lifting, and that is, the operation is not simple, nor one to be undertaken haphazard. It involves much time, labour, and expense, in many cases far more than the worth of the trees. If your trees are from 8 feet to 10 feet high you can lift them, but when they are above that they should be seen by an expert, who would express an opinion as to whether the trees could be safely moved, and also give the probable cost. Trees and shrubs of moderate dimensions can be purchased from a nursery. They undergo a certain process, being regularly transplanted, and brought into fit condition for removal. Our experience is that it is not so often in removing the trees as in planting that the failure occurs. A tree may arrive safely in the purchaser's garden and then be killed through careless planting, allotting the work to someone who knows nothing about it. More things are killed through sheer ignorance than many are aware of, and in the hurry to get a garden full of flowers and trees and shrubs in one year the evil is more manifest. A healthy tree well planted should not die, but when jammed into a hole half a size too small for its roots failure is certain. If you will tell us the dimensions of the trees and their names we will advise you further.

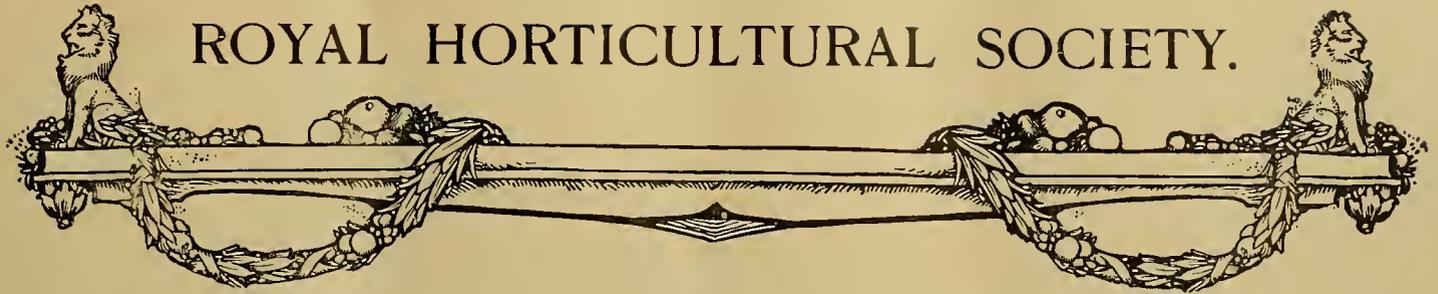
Violets in early spring.—I shall be much obliged if you will kindly tell me how to get Violets in early spring. I am greatly interested in the flowers, and have plenty out of doors, but want them quite early in the spring—I mean such varieties as Princess of Wales. Violets are so popular now, and so many beautiful varieties have been raised, that this question may possibly interest others besides me.—C. R. [Precisely this question was asked in the Journal of the Royal Horticultural Society some time ago, and the superintendent of the society's gardens, whose knowledge of Violets is considerable, says that in August or early in September a bed of not less than 1 foot deep of litter should be made and firmly trodden down. On this the frame or frames should stand. Then place upon the litter 6 inches of loam to which a little leaf-mould has been added, and on this plant the Violets, taking care to arrange matters so that the plants are not more than 6 inches or 8 inches from the glass. Give a good watering when all the plants are planted, and if the weather happens to be bright and sunny syringe them lightly overhead once or twice a day. The frame lights should not be put on at all at first unless it be very wet, and then the frames should always be well ventilated, not close shut. When the nights get really cold cut the lights on, but even then give plenty—plenty—of air whenever the weather is favourable. The Violet can stand a good deal of cold, but what it cannot stand is a close, stuffy, muggy atmosphere. It almost lives on air. Judgment must be used in watering. Violets do not at all like to be quite dry, but wet, soaking, loose soil they dislike. Therefore water when really necessary, but always in the morning, when you can keep the lights at least open, so that the foliage may get quite dry before night during the short winter days. Whenever the thermometer stands at about 35° or 30° they will be all the sturdier if the lights are taken off altogether for a couple of hours in the middle of the day when the weather is bright and fine. Young plants raised from last spring's runners are much to be preferred to old ones; they produce a greater quantity of larger and more fragrant flowers.]

CATALOGUES RECEIVED.

Carnations, Picoles, Auriculas, and Daffodils.—Mr. James Douglas, Edenside, Great Bookham, Surrey.
General Catalogue of Bulbs.—M. Herb, Naples, Italy.
Strawberries and Small Fruits.—Messrs. Laxton Brothers, Bedford.

*. * The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.

ROYAL HORTICULTURAL SOCIETY.



OPENING OF THE HORTICULTURAL HALL BY HIS MAJESTY THE KING.

FRIDAY, July 22, was a red-letter day in the history of the Royal Horticultural Society. The new Horticultural Hall in Vincent Square, which has been built to celebrate the centenary, was opened by His Majesty the King, accompanied by Her Majesty the Queen and H.R.H. Princess Victoria. If the ceremony was brief there was a joyousness and sincerity in the proceedings which augur well for the future. The Hall, fresh from the builders' hands, is commendably light, and the sun shone through the canvas screens on a brilliant assembly of horticulturists and representatives of allied scientific associations.

Although a great work has been accomplished, it must be remembered that £14,000 is still required before the new Hall is free from debt. It is a large sum and an anxious burden to the council, who have worked with unflagging enthusiasm to mark the centenary in a way that future generations can never forget. The building is a witness to the horticultural activity of the early years of the twentieth century, and to the unselfish work of men who have given, and are willing to give in the future, of their substance and labour to the furtherance of practical and scientific gardening in the British Isles. Men who are willing to do this, and to many of whom work is a pleasure and not a necessity, deserve the thanks of everyone interested in horticulture, and not the trade only, but those amateurs to whom the large exhibitions and the fortnightly meetings are both a delight and an instruction.

The history of the society has been written in our pages, and it is recorded in the excellent treatises that have been

published recently by the society. The succinct review by the President, Sir Trevor Lawrence, Bart., gives in a pleasantly lucid way the beginnings, the trials, and the triumphs of an organisation that for present vigour is unmatched, and this result is the outcome of the fostering care of the council. Many who worked loyally in the past have gone to the great unknown, but their labours have helped to build up this great institution.

We are ever mindful of past friends, but those living amongst us deserve their meed of praise, and it is surely Sir Trevor Lawrence, Bart., and the Rev. W. Wilks, the secretary, who have borne the greatest burdens through the long and weary years that have passed since the society was rescued from the trammels of an unhappy and almost disastrous policy. A quiet determination to build firmly on a sure foundation, and that foundation horticulture, brought about the gathering together on July 22 in a crowning work, which men prompted by the right motives in the future will carry on as the years roll by.

There was one figure in this large assembly to whom one's thoughts were instinctively directed, and that the aged Baron Schröder,

whose munificent contribution to the building fund of £5,000 and a further gift of furniture for the famous Lindley Library are fresh in mind. Many years ago the Baron attempted to launch a scheme for a New Hall without success, but the centenary gave an opportunity of again urging the need of something more respectable than a Drill Hall in a narrow and dirty street. To one so devoted in his love for horticulture the opening of the Hall by the King will remain a pleasant incident in a long and busy life, and those who have not subscribed will gratify Baron Schröder if they will do so, to free the Hall from debt before the centenary year closes in the March of 1905.

The arrangements were admirable. Members of the council and others, with green wands in their hands, conducted the guests to their seats between eleven o'clock and noon, when the doors were closed for the reception of their Majesties half an hour later. It must not be forgotten that thanks are due to the council and the office staff for the smoothness of the arrangements, and we may mention by name, apart of course from the higher officers, Mr. S. T. Wright, the superintendent of the shows and of the Wisley Garden, Mr. Frank Reader, Mr. Hutchinson, and Mr. Plowman.



INTERIOR OF THE ROYAL HORTICULTURAL HALL.

The string band of Lieutenant Charles Godfrey, M. V. O., was stationed in the musician's gallery and played selections of music before and after the opening proceedings, and a Guard of Honour of the Cadet Corps of the boys of Westminster School was stationed at the main entrance to the building.

The King and Queen, who had driven to the Hall by way of Victoria Street and Ashley Gardens, arrived shortly after half-past twelve. Their Majesties were received by Sir Trevor Lawrence, Bart. (president of the society), and by Sir John Llewelyn, Bart. (a vice-president), Baron Sir

Henry Schröder, Bart. (chairman of the building committee), Mr. J. Gurney Fowler (treasurer of the society), the Earl of Ilchester, Captain Holford, C.I.E., the Hon. J. Boscawen, Mr. W. Bilney, Mr. G. Bunyard, Mr. J. Hudson, Mr. F. G. Lloyd, Mr. W. Marshall, Mr. H. B. May, Mr. A. H. Pearson, Mr. H. J. Veitch, and Mr. A. L. Wigan, members of the council, and the Rev. W. Wilks (secretary), all of whom were presented to their Majesties by the president. The King and Queen were then conducted to the platform, the Home Secretary being present as Minister in attendance.

In the decoration of the Hall for this occasion, as little was attempted as possible, in order to show the exact dimensions and character of the building. The platform was covered in crimson baize and was of hexagonal form, and consisted of three wide steps gradually rising to the main level, which was approached by a wide stairway in the centre. A large Indian carpet with a white ground was placed beneath the two Louis XIV. chairs of carved wood, gilt and upholstered in old crimson damask, and surrounded by similar chairs for the suite, members of council, and others. There was a background of Palms, white Hydrangeas, and Lilies, arranged by Messrs. J. Veitch and Sons.

Among the other guests who were accommodated on the platform were the Right Hon. the Earl of Onslow, G.C.M.G., the Russian Ambassador, the Austro-Hungarian Ambassador, Lord Medway, Lady Lawrence, Miss Lawrence, Sir George Birdwood, K.C.S.I., Sir Cecil Clementi-Smith, G.C.M.G., Sir Thomas Elliott, K.C.B. (Secretary to Board of Agriculture), Sir Thomas Hanbury, K.C.V.O., Sir A. J. Reynolds (Sheriff), Sir W. Thiselton-Dyer, K.C.M.G. (Director of Kew), Sir William Treloar, Mr. Burdett-Coutts, M.P., Major Haggitt, R.E., Major Hussey, R.E., Mr. Gerald Loder, M.P., Dr. Maxwell T. Masters, F.R.S., the Rev. Professor Henslow, M.A., and the Rev. W. H. Twining, Rector of St. Stephen's, Westminster. Among other distinguished personages who accepted the invitation of the President and Council to be present were the Earl and Countess Grey, the Countess of Donoughmore, the Viscountess Sherbrooke, the Lady Llangattock, Lady Arbuthnot, Lady Musgrave, Lady Faudel-Phillips, the Hon. Mrs. Boyle, Sir James Blyth, Bart., Sir Daniel and Lady Morris, Sir Walter Murton, Mr. H. L. Bischoffsheim, Professor G. S. Boulger, Mrs. Stephenson Clarke, Dr. M. C. Cooke, LL.D., Mr. Jeremiah Colman, the Rev. G. H. Engleheart, Mr. F. du Cane Godman, the Rev. Dr. Gow (Headmaster of Westminster School) and Mrs. Gow, Dr. Rutherford Harris, Miss Lindley, Dr. George Murray, F.R.S., Colonel Wyndham Murray, the Rev. Canon Page-Roberts, Dr. A. B. Rendle, Dr. J. Augustus Voelcker, Professor Marshall Ward, F.R.S., and the Mayor of Westminster.

Sir Trevor Lawrence read the following address:—

May it please your Majesties,—

We, the president, the vice-presidents, the council, and the Fellows of the Royal Horticultural Society—who now number more than 8,000—venture, with our loyal duty and greeting, to welcome your Majesties to our New Hall. The centenary of the society, which was founded in March, 1804, is rendered memorable by the erection of the building in which we are assembled, and by the acquisition, through the generosity of Sir Thomas Hanbury, K.C.V.O., of a celebrated garden, in place of that at Chiswick, which had become unsuitable for the purposes of the society owing to the advance of suburban London westward. The first charter of the society, granted by his Majesty King George III. in 1809, set out the objects for which the society had been founded—namely, “the improvement of horticulture in all its branches, ornamental as well as useful.” Through the collectors sent out by the society during the forty years from 1821 to 1861, great numbers of beautiful and useful trees, shrubs, and plants have been introduced into, and acclimatised in, the British Isles. The success attending these expeditions may be realised when the late Mr. Andrew Murray was able to say, with undeniable truth, in his “Book of the Royal Horticultural Society,” “the results”



EXTERIOR OF THE ROYAL HORTICULTURAL HALL.

(of the work of the society's collectors) “have affected the appearance of all England. Nowhere can a day's ride now be taken where the landscape is not beautified by some of the introductions of the Royal Horticultural Society.” Added to this, professional gardeners have been greatly assisted and encouraged by the help and support of our society in the elaborate and valuable work of hybridisation and selection, by which new and improved varieties of plants, fruits, and vegetables have been raised in vast numbers. The fortnightly shows of the society have achieved a widespread celebrity. At them all the more interesting new plants, as well as the more important results of skilled horticultural effort, are first seen and first submitted to the judgment of the most competent experts in the kingdom. The adherence of the society to the work of promoting horticulture in all its branches can hardly fail to secure the approbation of the garden-loving race over whom your Majesty reigns. This is shown by the rapid increase in the number of its Fellows, which has risen from about 1,300 in 1887 to 8,150 now. Every day witnesses advances in many directions, but no art or science has progressed more rapidly during the last fifty years than that of horticulture. The demand for flowers and fruits has grown to such an extent that it has developed a great and valuable industry, and the countenance which your Majesties have graciously extended to our society has largely assisted in creating, guiding, and helping this valuable national asset.

We take this opportunity of expressing our enduring obligations to your Majesties for the many and gracious visits you have in years past paid to our society's shows—visits which have done much to encourage us in our efforts to foster and maintain in the highest efficiency the science and art of horticulture. And in thanking your Majesties for your presence here to-day and for the warm interest you have ever shown in the society, we desire to assure you that the valuable help the illustrious Prince Consort gave the society in days of serious difficulty—now some forty-five years ago—has never been forgotten.

In the order of the ceremony it was arranged that at this point the following report of the building and appeal committee should be read by Mr. Gurney Fowler, but the report was taken as

read, and was presented to the King by Baron Sir Henry Schröder, Bart.

May it please your Majesties,—

On behalf of the building and appeal committees, we venture humbly to submit the following report on the erection of the building in which we are honoured by your Majesties' presence to-day. For very many years the fortnightly and other shows of our society have been one of the most effective means towards securing the objects we have in view, viz., the diffusion of more correct knowledge of what plants should be grown, and of how they may and should be cultivated. These fortnightly gatherings were first held at the society's early home in Regent Street, and for many years afterwards they took place at South Kensington. When, however, in 1887, the gardens there were surrendered to the Royal Commissioners of the 1881 Exhibition, the society moved their shows to the Drill Hall of the London Scottish Volunteers, at Buckingham Gate, Westminster, where they have been held up to the present time. They have been ever increasingly popular, and the society has enjoyed the favour and support of horticulturists, and of the public generally, without interruption. A few years after the removal of the shows to the Drill Hall, we began to find the accommodation insufficient, the hall being at times inconveniently crowded both by exhibitors (who have often not had sufficient space to properly stage their exhibits) and by Fellows of the society, and others, who have not had proper facilities for seeing and studying the plants shown. At the same time the office accommodation at Victoria Street, Westminster, which has always been very limited, has for many years been wholly inadequate for carrying on the increasing general office and routine work of the society. Your Majesty, as long ago as 1890, addressed the Fellows in the following words: “I sincerely hope your labours to obtain a hall may be successful, for I feel sure it would be of the greatest use and advantage.” Since these encouraging words were spoken the need for the hall has increased beyond all expectation, and the project has never been absent from our hopes and our thoughts; and it is this hall and building, the final result of many long years of hope deferred, but of sustained effort, that your Majesty has graciously consented

to declare open to-day. Much difficulty was experienced in finding a suitable site for the building, but we are happy in thinking that our present situation leaves nothing to be desired. Funds had also to be collected, and more than 1,300 donations have been received from all classes of the horticultural community and others, amounting in all to £26,000. £14,000 still remains to be raised before the society can regard itself as the unfettered possessor of its hall and building fully equipped. The main purpose of the building is the holding of our fortnightly shows, but other interests have not been lost sight of, and we have reason to believe that the Hall will often be in demand for numerous other purposes. In addition to the Hall, we have now ample office accommodation and a proper home for the Lindley Library, which is of such great use to all students of horticulture.

The King replied to the society's address as follows: In the name of the Queen and myself I thank you for your loyal and dutiful address. I am very glad that you have at length obtained a suitable hall for your beautiful and interesting shows and adequate accommodation for your library, and for the performance of the official work of the society; and it is with great pleasure that the Queen and I are here to-day to declare these new buildings to be open. We are pleased, also, to be able to congratulate the society upon their having acquired the garden to which you allude, and for which you are indebted to the goodness of Sir Thomas Haubury. The love of horticulture has increased immensely in this country within the last century, owing in part, no doubt, to the greatly extended facilities enjoyed by our people for visiting rural places; and no science deserves more encouragement than that which tends to promote the study of the art of gardening, and to stimulate a taste so wholesome and elevating as the love of trees and of flowers. Our visits to your exhibitions have always given us great satisfaction; and I remember, and am touched by your

allusion to, the interest which my dear father took in your society. The Queen and myself wish that every success may attend the opening of this New Hall and its adjoining premises, and trust that the centenary which we are celebrating to-day may prove to be the occasion of an accession of prosperity to the Royal Horticultural Society.

Congratulatory addresses on behalf of the Société Royale d'Agriculture et de Botanique de Gand (Belgique) and the Horticultural Society of Prussia were presented by Dr. Maxwell Masters, F.R.S., on behalf of Comte de Kerchove de Denterghem, and Baron von Cramm and Professor D. L. Wittmack respectively. A congratulatory address was presented from the National Rose Society by Mr. Edward Mawley, the honorary secretary. These addresses were taken as read. Mr. Edwin Stubbs, the architect, was then presented to the King, and submitted plans of the offices erected in conjunction with the Hall.

His Majesty next, at the request of the president and amidst cheers, declared the Hall open in the following words: "I declare this magnificent Hall now open."

Lady Lawrence then presented a bouquet of Orchids to the Queen, and Princess Victoria accepted one made of Malmaison Carnations from Miss Lawrence. This closed the proceedings, and their Majesties left the Hall.

[We have received from Mr. Henry Cannell, Swaaley, Kent, a copy of a pamphlet written and distributed by him in 1890, pointing out the great need of the Royal Horticultural Society for a proper home, and expressing the wish that "we hope to live to see the day when we have a hall worthy of the Royal Horticultural Society."]

THE FIRST SHOW IN THE ROYAL HORTICULTURAL HALL.

THE first exhibition of the Royal Horticultural Society in the New Hall, which was opened on the 22nd inst. by His Majesty the King, was held on

Tuesday last; the National Carnation Society held their annual show on the same occasion, occupying half the Hall with their exhibits. The remaining space, however, was filled with miscellaneous exhibits of plants, flowers, and fruits, chief among the latter being a collection of nearly 100 dishes of Gooseberries in eighty-seven varieties, which was awarded the Hogg Memorial medal. Orchids were not numerous shown, although several new and interesting ones were among them. Hardy and tender plants and flowers were well represented, and altogether the first exhibition in the New Hall may be said not to have been unworthy of it. In the afternoon a lecture on "Orchids, Varieties and Hybrids," illustrated by limelight views, was given by Mr. John Bidgood. One hundred and twenty candidates were elected Fellows of the society.

ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch (chairman), Baron Sir Henry Schröder, Bart., Messrs. James O'Brien, de B. Crawshaw, H. J. Chapman, H. A. Tracy, W. H. Young, J. G. Fowler, H. Little, W. Boxall, F. J. Thorne, J. Wilson Potter, H. Ballantine, A. A. McBean, F. W. Ashtoo, John Odell, H. T. Pitt, Richard G. Thwaites, Norman C. Cookson, Frank A. Rehder, J. Charlesworth, Jeremiah Colman, H. M. Pollett, and James Douglas.

Messrs. Charlesworth and Co., Heaton, Bradford, had some beautiful *Vanda coelestis* in the centre of their group, which included several excellent hybrid *Cattleyas* and *Laelio-Cattleyas*. *L.-C. callistoglossa* was very handsome, and *Brasso-Cattleya digbyana*, *C. gaskelliana* alba, and *Brasso-Laelia purpurato-digbyana* were other beautiful things. *Dendrobium filiforme*, *Ceologyne sandersonia*, and *Cypripedium Mrs. Herbert Druce* (niveum × bellatulum), too, were shown, making a group full of good plants. Silver-gilt Flora medal.

Messrs. Sander and Sons, St. Albans, in their group of Orchids showed very good *Cattleya warriniana*, *C. Vulcau* (Mossie × schroderiana), *C. gaskelliana* alba, *C. Shakespeare*, *Laelio-Cattleya blecheyensis*, *L.-C. Atalanta*, and others, as well as *Saccolabium retusum* (very beautiful), *Dendrobium superbum*, *Catasetum macrocarpum viride*, several *Cypripediums*, *Dendrochilum filiforme*, *D. fytchianum*, *Vanda liohiata*, *Polystachya leonensis*, and other well-flowered Orchids. Silver Flora medal.

Messrs. Hugh Low and Co., Enfield, exhibited very fine *Cypripedium gigas Corudeauii*, *C. l'Ansoni* (Morgana × rothschildiaoum), *C. Maudie*, *C. shillianum*, *Phalaenopsis violacea* (sweetly scented), *Lycaste tricolor*, *L. leucantha*, *Dendrobium cruentum*, *Odontoglossum williamsianum*, *Bulleya celestis*, and *Cattleya Mary Gratrix*. *Mormodes buccinator aurea*, with bright orange flowers, and *Brassavola digbyana* were other plants of more than ordinary interest and beauty in this group. Silver Flora medal.

J. Colman, Esq., Gatton Park, Reigate (gardener, Mr. W. P. Boud), showed a small group of Orchids, in which were *Sobralia Veitchii*, *Cattleya Harrisonia*, *Phalaenopsis amabilis*, *Stanhopea Wardii*, *Cypripedium callosum Sandere*, *Lycaste leucantha*, *Nanodea Medusa*, and a good plant of *Laelia xanthina*. Silver Bank-sian medal.

Two splendid plants of *Oncidium lanceanum* were shown by W. W. Mann, Esq., Bexley, Kent.

H. T. Pitt, Esq., Stamford Hill, N., showed *Suphrocattleya chamberlainiana* Rosslyn var., *Cattleya thurcodianum*, and *Odontoglossum Uro Skinneri* album. Cultural commendation.

Masdevallia harraya alba was shown by Messrs. A. J. Keeling and Sons, Westgate Hill, near Bradford.

Francis Wellesley, Esq., Westfield, Woking (gardener, Mr. Hopkins), sent *Cypripedium harveyianum* (Stonei × leeanum) and *Laelia Iona ignescens* (tenebrosa × dayana), with rich, velvety purple lip and bright purple sepals and petals.

Cattleya gigas var. White Queen was shown by W. N. Burkinshaw, Esq., Hesse, Hull (gardener, Mr. Barker). It is a handsome flower, sepals and petals pure white, with a rich purple lip.

E. W. Beckett, Esq., M.P., Wood Lee, Virginia Water (gardener, Mr. G. Bartlett), exhibited a cut raceme of a *Repantthera*, supposed to be *coccinea*, from Japan, a very handsome species, with rich orange-red flowers.



OPENING OF THE NEW HALL BY HIS MAJESTY THE KING, WHO WAS ACCOMPANIED BY HER MAJESTY THE QUEEN AND H.R.H. THE PRINCESS VICTORIA.

Odontoglossum elegans rosefieldense, *O. crawshayanum*, and *O. loochristiana* Theodora were shown by de Barri Crawshaw, Esq., Sevenoaks.

NEW ORCHIDS.

A first-class certificate was given to each of the following: *Angraecum infundibulare*.—This is a new species from Victoria Nyanza. It was found in the first place in 1842, but has since been lost to cultivation until reintroduced recently. The specific name has reference to the remarkable inverted funnel-shaped lip, the broad frontal lobe is white, and the mouth of the throat is green. The lip tapers gradually and extends behind and upwards as far as the base of the flower-stalk. At the end of this there is a tail some 3 inches or 4 inches long. The greenish sepals and petals are convolute, rolled back so as to meet almost all along the margins. Exhibited by Lord Rothschild, Tring Park, Tring (gardener, Mr. Dye).

Cattleya F. W. Wigan superba.—This is the result of a cross between the finest forms of *C. schilleriana* and *C. aurea*. We hope to give a fuller description next week. Shown by Messrs. Charlesworth and Co., Heaton, Bradford, Yorks.

An award of merit was given to each of the following: *Cattleya Patrocini* Tring Park variety.—*Cattleya Patrocini* was the name given some years ago to a supposed natural hybrid between *C. Leopoldi* and *C. Loddigesii*, and the Tring Park variety of this is an artificially raised hybrid between the forms of *C. Leopoldi* and *C. Loddigesii*. Several of the seedlings were exhibited, and they varied considerably. An award of merit was given to the best called Tring Park variety. The sepals and petals are rich lilac-rose, spotted with a deeper colour. From the Right Hon. Lord Rothschild, Tring Park.

Odontoglossum Uro Skinneri splendens.—A fine variety of this *Odontoglossum*. The plant shown was very vigorous

Messrs. S. Spooner and Sons, Hounslow, showed some early Apples, as Mr. Gladstone, Red Astrachan, Pott's Seedling, Early Red Margaret, Beauty of Bath, July Queen, and a box of Morello Cherries.

Numerous seedling Melons were exhibited before this committee, but none received an award. They were sent by Captain Holford (gardener, Mr. Chapman), the Right Hon. J. Chamberlain (gardener, Mr. John Deacon), the Marquis of Salisbury (gardener, Mr. Nurman), and Mr. H. Parr, Trent Park Gardens, Barnet.

A silver Knightian medal was awarded to H. L. Bischoffsheim, Esq., Warren House, Stanmore (gardener, Mr. Ellis), for an excellent exhibit of Pine-apples.

A new Cucumber Progress was shown by Lord Belper, Kingston Hall, Derby (gardener, Mr. Cooke). It is a large, smooth fruit.

Mr. George Norman, gardener to the Marquis of Salisbury, Hatfield, sent some very fine Brown Turkey Figs and Royal George Peaches, as well as some seedling Melons. The Figs were splendid. Silver Knightian medal.

Peach Libra was sent by Mr. W. Taylor, Hampton, and Raspberry Penwill's Champion (award of merit at Holland House) by Mr. G. Penwill, Totnes.

A new Pea, called Brookland Prize, said to be a second early, about 2 feet high, and a very heavy cropper, was shown by Mr. William Deal, jun., Feering Hill, Kelvedon.

Pea Yate's Purple Pod, the exterior of the pods being dark purple, was shown by Mr. H. Yates, Sutton, Hounslow.

Two plants in pots, each bearing several fruits, of *Solanum guatemalense* (the Melon Pear) were shown by Messrs. Sutton and Sons, Reading. The flavour is something between that of a Melon and a Pear.

Messrs. H. E. and W. Lack, Wellingborough, showed Red Currant Lack's Monster Red, Gooseberry Princess Victoria (large white), and Premier (large red).

fine; *B. albiflora*, probably a form of the above or a closely allied species. A very striking plant was labelled *Astilbe alba*; it is very free flowering, with creamy white flowers on a strong inflorescence some 6 feet high.

Carnations in the cut state were well shown in vases by Messrs. Cutbush and Sons, Highgate. Helmsman (fine white), Miss A. Campbell (yellow) were good of the border kinds; and of Malmalsons Calypso (bluish) and Princess of Wales (pink) were in capital form. Silver Banksian medal.

A group of Carnations of the border section in pots was also shown by Messrs. Veitch, and here we noted Trojan, white; Triton, crimson; Ivo Sebright, pink; America, scarlet; Harry Fenn, crimson; Cecilia, fine yellow; King of Crimsons; Abbot, yellow ground, and others. Silver-gilt Banksian medal.

Messrs. William Bull and Sons, Chelsea, showed a small group of Crotons, Arealias, Begonias, Caladinnus, Dracena Victoria, and Palms.

Messrs. Wallace and Co., Colchester, had fine groups of *Lilium speciosum album* Kratzeri, *L. pardalinum*, *Hemerocallis luteola*, *Lilium auratum* Wittei (very fine), *L. chalcidonicum*, *Delphinium sulphureum* in capital form, *Crinum Powellii*, with Statice and other things.

Very fine was the exhibit of Tufted Pansies from Messrs. Dobbie and Co., Rothesay. In many kinds, well set up, and very fresh, these things attracted much attention. Bronze Kintore, yellow; General B. Powell, golden; and Meteor, also yellow, were some of the best. In vases we noted Mrs. William McKay, rich yellow; Princess Ida, softest lilac-mauve; and Maggie Smatt, blue. White Empress was excellent. Pansies in great variety were well shown too. Silver Flora medal.

Cut Carnations in excellent variety came from the Marquis of Salisbury (gardener, Mr. Norman). Many of the best sorts in commerce were shown. The Briton, white; Argosy, yellow; H. J. Cutbush, scarlet; Miss A. Campbell, yellow; Agnes Sorrel, crimson; Lady Ridley, white; Daniel Defoe, light yellow ground, were among the best. Cut with full length stems they made a grand display. Silver-gilt Flora medal.

Messrs. G. Gibson and Co., Leeming Bar, Bedale, had a group of showy hardy flowers, in which Phloxes, Gaillardias, Lupins, perennial Peas, and other things were seen.

A refreshingly cool group of Ferns came from Messrs. J. Hill and Son, Lower Edmonton. Such *Adiantum* as *concinnum*, *teniforme*, *speciosum*, *macrophyllum*, and *pedatum* were noted in the very extensive collection of seventy-five kinds. Silver Flora medal.

A most extensive and varied group of Gladioli came from Messrs. Kelway and Son, Langport. Countess Crewe, white, crimson base; Melton, rosy mauve; Alice Wood, white and buff; Hall Caine, flesh and crimson; Piccioli, salmon-scarlet; Grandeur, yellow and buff; and Empress Frederick, yellow in two shades, are a few of the best in a large array of beautiful kinds. Silver-gilt Flora medal.

Mr. Amos Perry, Winchmore Hill, had many good hardy flowers, such as *Aster Thomsoni*, *Campnula carpatia* alta, *Platycodon grandiflorum*, and *P. pallidum*; *Lilium chalcidonicum*, *Clematis integrifolia*, *Gentiana septemfida*, *Spiraea venusta*, *Arnebia echioides*, and *Iris Kempferi*, as well as Water Lilies, were very good. Bronze Flora medal.

Messrs. R. and G. Cuthbert, Sonthgate, staged on the floor a fine lot of *Lilium speciosum* in variety. The plants were well grown and flowered. Ferns, &c., were arranged as a groundwork. Silver Banksian medal.

Carnations in pots were shown by Messrs. Phillips and Taylor, Bracknell. Some two dozen plants were shown, and included *Voltaire*, Mrs. M. V. Charrington (yellow), *Cecilia*, and *Agnes Sorrel* (crimson).

The Guildford Hardy Plant Nursery had a collection of hardy flowers—*Gaillardias*, *Lychnis*, *Delphinium sibiricum* in variety, *White Perennial* Pea, *Romney Coulteri* (very fine), *Acanthus*, *Eryngium*, &c. *Yucca filamentosa* was represented by a number of spikes.

From Messrs. Hugh Low and Co., Enfield, came a large of cut Carnations arranged in *Asparagus* and *Gypsophila*. Fancy self and yellow ground varieties were all abundantly represented and in considerable variety.

A group of a large and showy double *Fuchsia* named *Sylvia* was staged by Messrs. James Veitch and Sons, Limited, Chelsea. Freely flowered, this handsome variety promises to make a useful decorative plant for market and general purposes. The habit of growth is dwarf, vigorous, and compact.

Messrs. J. Laing and Sons, Forest Hill, showed a good lot of *Begonias* in many distinct colours. Admiral Freemantle is a fine crimson (single), the Hon. Mrs. Mulholland (orange), *Lady Cardigan* (single, white), *Lady Londonderry* (double, white), and many other showy good ones were included.

NEW PLANTS.

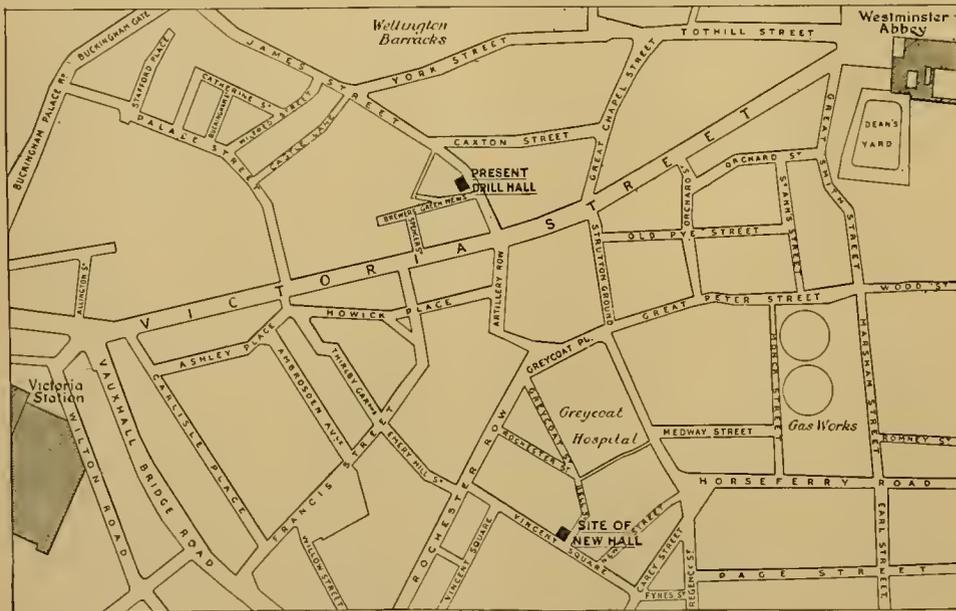
Gladiolus Leader.—A magnificent yellow-flowered sort, much the finest yet seen in this shade of colour. The flower is large and widely expanded, soft yellow, with a deeper lemon-yellow in the lower part, and faintly suffused with colour at the base internally. Award of merit.

Gladiolus Aphrodite.—This is a very fine white-flowered variety, with a bold and well-formed spike, and with flowers of large size and substance. Award of merit. Both these were shown by Messrs. Kelway and Son, Langport, Somerset.

Gentiana dahurica.—A very pretty procumbent species from Dahuria. The somewhat slender stems are nearly 1 foot in length. The flowers, which are of intense rich blue and produced in terminal clusters, are about 1½ inches long and 1 inch or more broad when expanded. The plant will be best suited on the rockery. Exhibited by Messrs. William Cutbush and Sons, Highgate. Award of merit.

Carnation Dafudil.—A very beautiful and well-formed self-yellow border *Carnation*, in every respect a highly meritorious flower. Award of merit.

Carnation The Old Guard.—This is also a border variety, and of intense scarlet colouring. Buds and blossoms were freely shown. The calyx is long and perfectly formed. These were from Mr. James Douglas, Great Bookham Surrey. Award of merit.



PLAN SHOWING POSITION OF THE NEW HALL.

and bore a raceme with five flowers and some ten or a dozen buds. The large, flat roundish lip is rose-purple, mottled with white, while the sepals and petals have a greenish yellow ground colour, heavily blotched with chocolate-red. Exhibited by J. Wilson Potter, Esq., Croydon (gardener, Mr. Young). Award of merit.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. W. Brotherton, J. McIndoe, S. Mortimer, Alexander Dean, George Kelf, H. Parr, H. Markham, J. H. Goodacre, F. Q. Lane, J. Jaques, George Wythes, G. Norman, James H. Veitch, A. H. Pearson, Owen Thomas, and R. Lewis Castle.

Messrs. J. Veitch and Sons, Limited, Chelsea, exhibited from their Lsngley Nursery a splendid collection of Gooseberries, fruits in dishes, and single cordon plants, taken up from the open ground. Of the cordons there were fifty, which made a background to the display, and nearly 100 dishes of fruits in eighty-seven varieties. The samples shown were very fine fruits, of good size, and quite ripe. The newest varieties among them were Golden Gem (rich brown yellow, late), Langley Gage (white, rich flavour), and Langley Beauty (large early yellow). Various shades of red, yellow, green, and white were represented. Some of the finest dishes, in addition to those already named, were of Queen of Trumps, White Champagne, Transparent, Whitesmith, Flora, Careless, Antagonist, Paxtonian (whites), Monarch, Lord Derby, Warrington, Whinham's Industry, Nottingham, Dan's Mistake (reds), Green Gasconne, Early Green Hairy (greens), and Pretty Boy, Leveller, Trumpeter, Early Sulphur, and Prince Arthur (yellows). The Hogg Memorial medal was awarded.

Messrs. Rivers and Son, Sawbridgeworth, showed fruits of their new Peach Duke of York. They are of medium size and a rich orange-peach colour.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Drury, H. B. May, Charles E. Shea, R. C. Nutcutt, James Walker, J. F. McLeod, R. Hooper Pearson, R. Wilson Ker, F.S.A., Amos Perry, George Gordon, William Cutbush, R. W. Wallace, G. Renche, H. J. Jones, W. P. Thomson, E. H. Jenkins, W. J. James, E. T. Cook, Charles Dixon, Harry Turner, James Hudson, and William Howe.

Mr. M. Pichard, Christchurch, Hants, had a capital display, in which the early *Gladiolus*, *Phloxes*, and border Carnations were a feature. Of the more showy herbaceous plants were *Galega Hartlandi*, *Astilbe Non Rose*, *Crinum Powellii*, *Platycodon grandiflorum*, *Lathyrus latifolius* White Pearl, *Scabiosa caucasica* (a good dark-coloured form), *Echinacea purpurea* (very fine), *Iris levigata* in variety, a charming lot of *Montbretias*, with *Caempulans* of the *trubinata* and *carpatia* groups. Silver-gilt Banksian medal.

A tastefully arranged group of herbaceous *Phloxes* from Mr. Percy Waterer, Fawkham, Kent, showed these things to advantage. The sprays for the most part were arranged in single vases. Excellent whites were *Fiancée* and *Independence*. Flambeau, rich salmon-scarlet; *Molière*, light rose; *Coquelicot*, scarlet; and *The Mahdi*, purple, were of the best. Silver-gilt Flora medal.

Sweet Peas from Messrs. Jones and Sons, Shrewsbury, were well shown in large, handsome bunches, and with their own foliage. Some of the best were *Lady Grisel Hamilton*, blue; *Aurora*, rose striped; *Miss Willmott*, rose-scarlet; *America*, flaked crimson and white; *Victoria*, cream; *Blauche Burpee*, white; *Countess Cadogan*, with Grey Friar. Silver Flora medal.

A mixed group of things from Messrs. Veitch and Sons, Limited, Chelsea, included several handsome specimens of *Astilbe Davidii*, some of which carried twenty or more purplish inflorescences. *Buddleia variabilis* *veitchiana*, very



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AVENUES.

SO much has been written from time to time on this subject that it is a difficult matter to say anything new respecting it. As with almost everything else, avenues have had to submit to the caprices of fashion; at one time they have been advocated, at another denounced. During the eighteenth century it was as much the fashion to abolish or break up lines of trees as it was the custom a century earlier to plant them in that way. But if it had not been for the avenue planters of the sixteenth century many grand old English residences would have been shorn of what we consider nowadays to be among their finest features. There is an imposing grandeur about most of these old avenues; the massive boles of the trees and their ponderous limbs overhanging and meeting have their counterpart only in the vaulted roof of our grandest Gothic cathedrals, and the gloomy shade that invariably accompanies such an avenue imparts to it quite an air of solemnity.

The worst things that have been said against avenues are that they are formal, and that as a rule they cut up places and destroy all breadth of effect; also that there is a monotony about them that makes all places look alike, however diverse their surroundings—all certainly strong objections, for nothing is worse than formality in garden design, though parallel lines of trees may in certain cases be in strict conformity with the immediate surroundings. Besides, as has just been stated, there is a certain degree of stateliness in formal lines of grand trees such as cannot be obtained by other means, and if the long gradation of perspective leads to a definite object in the distance, nothing can well be more appropriate. The second objection—that avenues cut up the place—is simply a question of proper position. We have seen some avenues where they do not interfere in the least with the surroundings, that is, as regards shutting out a view or destroying breadth of effect; but where an uninterrupted avenue cuts up a beautiful park into two distinct portions, such as the Long Walk in Windsor Park, then it is objectionable. The position of an avenue cannot in all cases be determined by any arbitrary rule; on the contrary, the peculiarities of the situation and the exigencies of the case must be taken into consideration. The objection that avenues give to all places an appearance of sameness when laid out in a stereotyped way is also a

valid one; nothing could well be more formal than avenues radiating in all directions from the house or some other principal object as a centre. There are, happily, but few examples of this way of dealing with avenues to be seen at the present day, at least in this country, though they were plentiful enough till the dawn of the English or natural style of gardening.

In making an avenue there are various points to be considered; the soil, locality, and climate must be taken into account, and the class of trees best suited for the purpose should always be planted. Had these matters been considered we should not now see so many bad examples of avenue planting as at present exist. If a quickly formed avenue be required it is useless to plant such slow growers as Oaks, and if a narrow overhanging one be the object in view the Lombardy Poplar is not the tree to select. One of the chief essentials of a perfect avenue is that it should be composed of a single species or variety, for if otherwise the slightest difference in growth or tint of foliage will be plainly discernible when the trees are ranged side by side. Uniformity of size is another point to consider also, and at the time of planting all the trees should be well balanced both in root and top, and of straight growth.

The choice of any particular kind of tree for an avenue is a matter of taste, but among the deciduous class the following should be placed in the foremost rank, viz., the Horse Chestnut first, then the Lime, Spanish Chestnut, Beech, Elm, and for street planting the Western Plane and the Acacia, particularly the variety *bessoniana*, which differs from the rest in being very compact in growth, never forming the ugly wide-spreading boughs which characterise the typical form. The Lime is objectionable in a town, as it has a tendency to turn rusty before autumn has well set in. The majority of old avenues in this country are composed of Elm, Lime, Horse and Spanish Chestnut, Oak, and Beech, but to these may be added the Sycamore, False Acacia, Plane, and the various Poplars, including the Lombardy, which latter is very distinct in character, owing to its vertical growth and towering height. Twenty years ago it was the fashion to plant avenues of conifers, but unfortunately the majority of them are unsuitable. The result of ill-considered planting of avenues is seen in many parks to-day, and the result simply of the conifer craze that existed in the past.

LILIES AT KEW.

THE Japanese *Lilium Hansonii*, which has petals that appear to be carved out of solid wax, has been, as usual, very fine this season, but in common with many of the earlier-flowering sorts it is now long past. Of the species that flower during the month of July the North American Panther Lily (*L. pardalinum*), which is strongly represented at Kew, has yielded a fine display, particularly the clumps in the Rhododendron beds, where the young shoots are sheltered from the cutting winds in spring, and the bases of the stems from the sun later on. On the evening of a hot summer day, when the sheaves of stems with their crowd of gracefully-recurving, bright-coloured blossoms were lit up by the rays of the declining sun, they formed one of the most striking pictures that I had seen for some time. The Panther Lily is very prolific in varieties, or perhaps I should say varietal names, for there is practically no difference between many of them. Certainly they do not show such a marked divergence from each other, and from the typical form, as the allied *L. superbum*, the varieties of which are seldom, if ever, classified.

Burbank's Lilies (for this appears a better definition than *Lilium Burbankii*) have this year been very fine, but for all this it is a source of regret that they were ever distributed in such a way. We were told that they resulted from intercrossing *L. pardalinum* and *L. washingtonianum*, but I have in every instance failed to find any traces of the latter. Some of those at Kew are *L. pardalinum* pure and simple, while the others in every way suggest a hybrid between this just-named species and *L. Parryi*. These are among the most vigorous of all the Burbanks. These species with creeping rhizomatous bulbs are particularly well suited for associating with Rhododendrons, as a soil largely composed of vegetable matter just meets their requirements, whereas another species now at its best is only seen to advantage in a good deep loam. This is the Scarlet Martagon (*L. chalcedonicum*), whose Turk's-cap-like flowers are of a bright sealing-wax red tint. It, in common with *L. candidum* and *L. Martagon*, is more frequently met with in a flourishing state in cottage and farmhouse gardens than in more pretentious establishments, the principal reason being that they greatly resent disturbance at the roots, and once established they remain unmolested, occupying perhaps the same ground that they have done for generations. It is long since I have seen the pretty little upright-flowered *L. philadelphicum* so fine as it has been this year at Kew, a small round bed being dotted with numerous spikes of its bright-coloured blossoms.

In the Himalayan portion of the Temperate house are fine specimens of *L. auratum macranthum*, or *platyphyllum*, *L. Henryi*, and *L. sulphureum*. In this structure, which is

unheated except during severe frost, *L. auratum* seems to have a congenial home, at all events I saw no traces of that mysterious disease so fatal to *L. auratum* out of doors. The variety *macranthum*, or *platyphyllum*, just alluded to, is a very fine form, with large broad leaves and massive saucer-shaped blossoms.

Of *L. Henryi* little need be said, for though of comparatively recent introduction it has proved so amenable to our climate that it is to be met with wherever a collection of Lilies is grown. Already we have a hybrid (*L. Kewense*) between this species and *L. Brownii* Chloraster. The third to mention of those in the Temperate house at Kew is *L. sulphureum*, which, when first introduced from Upper Burmah some fifteen years ago, was distributed under the name of *L. wallichianum* superbum. This is represented by a fine clump, the stems of which average about 6 feet in height, and are well furnished with foliage. From the axils of the leaves on the upper part of the stem bulbils are produced after the manner of the Tiger Lily. The long trumpet-shaped flower is white, tinged with reddish brown on the exterior, while the tubular portion of the inside is yellow.

After passing in review these different Lilies one comes to a group which has long puzzled me, and concerning which there are many conflicting opinions. I refer to those classed under the heads of *Brownii* and *japonicum*, which, in my opinion, at least need revision. Take first the case of *Lilium Brownii*, which is in all respects a well-marked Lily. It has been long grown in this country, and is now and has for years been largely cultivated by the Dutch, but for all this its early history seems to be unknown. At Kew the Lily grown as *L. Brownii* is the *L. japonicum Colchesteri* of the "Kew Hand List," also known by the name of *L. odorum*. The fact that it is mistaken at Kew for *L. Brownii* should be sufficient evidence that the two are nearly related, yet *Brownii* is considered a distinct species, and the other a form of *L. japonicum*. This last name is in the "Hand List" referred to as the correct title of the Lily so long grown in gardens as *L. Krameri*, between which and its so-called variety *Colchesteri* the only affinity is that they are both members of the same section of the genus *Lilium*. Again, the Lily known as *L. Brownii leucanthum* recently flowering at Kew is indistinguishable from *L. sulphureum*. If *L. Colchesteri* or *odorum* is a variety of *Kramerii* then the better way will be to reduce the species of *Lilium* to five, corresponding with the sub-genera, and make all the other varieties of it, for surely *L. rubellum* is far more nearly related to *Kramerii* than either *L. Colchesteri* or *Alexandrae*, yet the distinctness of *L. rubellum* is never questioned. It seems to me that matters would be much simplified by discarding the mythical *L. japonicum* and including *Colchesteri* in the *Brownii* section. H. P.

NOTES OF THE WEEK.

FORTHCOMING EVENTS

- August 9.—Royal Horticultural Society's Meeting in New Hall, Vincent Square, Westminster.
 August 10.—Royal Botanic Society's Annual Meeting; Ventnor, Seveoaks, and Bishop's Stortford Flower Shows.
 August 11.—Taunton Deane Horticultural Show.
 August 13.—Sheffield Horticultural Show.
 August 16.—Exmouth (two days) and Clay Cross Horticultural Shows.
 August 17.—Shrewsbury Floral Fête (two days); Tynemouth (two days) and Calne Horticultural Shows.

The Gardeners' Royal Benevolent Institution and the Press.—At a meeting of my committee, held on the 22nd ult., the following resolution was unanimously adopted, which I was desired to forward to you: "That the best thanks of this meeting be tendered to the Editor of THE GARDEN for his kind services rendered to the institution at all times, and especially in connexion with the recent successful and record festival dinner to aid of the funds."—GEORGE J. INGRAM, *Secretary*.

Montbretias at Belgrove, Queens-town.—The following hybrid Montbretias are flowering in Mr. Gumbleton's garden at Belgrove: *Aureole*, *Le Pactole*, *Tête Couronnée*, *George Davidson*, *Grenade*, *Germania*, *Victor Welker*, *Flamboyant*, *Etoile Polaire*, *Europa*, *Gloire de Celle St. Cloud*, *Globe d'Or* (double-flowered), *Transcendant*, *Pottsii grandiflora fl.-pl.*, *Messidor*, *Fantaisie*, *Monsieur Jacques*, *Surprise*, and *Rayon d'Or*.

Sweet Pea Scarlet Gem.—This is one of Mr. Henry Eckford's novelties for 1904, and it answers the expectations formed of it. It has a broad, bold, upright standard, the other parts of the flower in keeping, the colour bright scarlet-crimson. With me it is a strong grower, producing its blossoms in pairs. Probably in a stronger soil than mine three flowers may put in an appearance on a stem. I regard it as an excellent addition to the rich-coloured Sweet Peas.—R. D.

Carnation Germania.—This yellow self Carnation, which was distributed by Mr. Ernst Benary of Erfurt many years ago, was seen in good character at the recent exhibition of the National Carnation Society at the Horticultural Hall. It lacks the size of *Daffodil*, *Cecilia*, *Mrs. M. V. Charrington*, and other new varieties, but it comes in refined character, and needs but little dressing for the exhibition stage. It lacks the vigour of constitution of some of the newer varieties, but it will be grown as a self yellow for some time to come.—R. D.

Potato Ringleader.—I am pleased to see that Mr. Wythes has nothing but praise for this Potato. I grew it when it first came out, have never failed to do so since, and have recommended it widely, as it possesses all the properties of a desirable early variety. It may not suit some of our leading vegetable exhibitors, because it is not large enough, but if any of the large show tubers were cooked with Ringleader the latter would be first easily. For frame culture it is excellent on account of its dwarf haulm, earliness, and good quality. Another point about this Potato is that it cooks well in October as well as July. What other early variety can the same be said of? May 28 is the earliest date I have dug here.—E. MOLYNEUX, *South Hants*.

Glasgow Botanic Gardens.—On the occasion of the meeting of the twenty-second annual congress of the Sanitary Institute, held in Glasgow recently, the members of the institute were entertained by the corporation of the city at a garden party in the Botanic Gardens. The gardens were looking almost their best, and much gratification was expressed by many of those present at the success attained in growing many plants under such adverse conditions as prevail in the smoke and fume-laden atmosphere of the city. The beds were bright and effective, while the many rare plants indoors attracted much notice. The *Nymphaeas*, of which there is a large collection, both inside and in the pond outside, were greatly admired. Mr. James Whitton, the superintendent of the city parks, deserves high credit for the improvements effected within recent years in the Glasgow Botanic Gardens.—S.

Ivy on walls.—It is strange anyone can cherish so apparent a delusion that Ivy upon walls generates dampness or has any tendency whatever in that direction. There is, I am aware, great difference of opinion upon the point, but I cannot see and have never heard advanced a single sound argument, or been shown an example to prove that it tends to keep walls damp. The most casual observer would seem to draw conclusions of an opposite nature. The Ivy clings to the wall by myriads of roots, and these would quickly absorb

any moisture there present. If a wall is properly built and has become dry, it cannot afterwards become moist except from atmospheric influences, whilst, if covered with Ivy, the mantle of foliage would shield it from rain, even driving rain that thoroughly wets naked walls, and if by chance any water penetrated through the leaves, there are the stem roots ready to absorb it. Obviously the wall must be drier and warmer. I do not know if anyone would support the theory that it generates dampness upon the assumption that the Ivy with its main roots in the soil is pumping up water into stem and leaf in order to sustain life and promote growth. None of this moisture would be parted with except by evaporation through the medium of the foliage, and under influences and in a manner that could not affect the wall.—A.

Fuchsia triphylla.—Although this *Fuchsia* was discovered on one of the West Indian Islands as long ago as the end of the seventeenth century, and is the species on which the genus is founded, it is only within the last few years that it has been introduced to this country. It is one of the most distinct and beautiful in the genus, its flowers being of a brilliant orange-red. They are produced in dense, drooping racemes from the ends of the shoots, each flower measuring 2 inches to 3 inches in length. The foliage is also very handsome, having a deep reddish purple tinge, especially on the under surface. In regard to cultivation, this species differs somewhat from the rest of the *Fuchsias*, and cannot be said to be so easily grown as they are. It is of tenderer constitution, and although it will grow and flower to a certain extent in an ordinary greenhouse, it thrives much better when given a higher temperature, and may even be grown in a mild stove heat. Judging by the distinct and rich colour of its flowers, it will no doubt prove a valuable subject for hybridising.

Cornflowers.—Whatever the charms of the rare and costly flowers of the season may be, the *Cornflower* of our fields is one of the best, and we should like to see every gardener giving it a good place. There is no more valuable subject for cutting. Strong autumn-sown plants grown in good soil are well worth having for the sake of cutting alone, and a bed or several lines of *Cornflowers* should be raised every year in the nursery or reserve ground, if not elsewhere. The bunches of the blue variety, which has been such a favourite this season, have a *Gentian-like* vivacity of tone, which nothing else resembles or comes near. No garden in which flowers are valued should ever be without a mass or a few tufts of it.

French Horticultural Society of London.—On the 28th ult. the members of this flourishing society and a number of friends paid a visit to Mr. Harry Veitch at East Burnham. The company, numbering nearly sixty persons in all, were met at Slough Station by Mr. Veitch and conveyed in brakes to his home, where a welcome repast was served in a marquee on the lawn. Time being short there were no speeches, but a very hearty cheer was given to the host and hostess on leaving. Mr. Veitch personally conducted the party round his garden and grounds, and much interest was evidently excited in the minds of the young foreigners as the various objects were inspected. The house, partly built by Grote the historian, has been added to of late years, and is a charming home situated in one of the most delightful parts of the country. Leaving East Burnham, under the guidance of Mr. Veitch, the company mounted the brakes again, and passing through Burnham Beeches proceeded to Dropmore. Here they were met by Mr. Page, the gardener, and were shown round the flower garden, the glass houses, and the grounds, where due note was taken of the many fine trees and shrubs. The weather was fine, and the outing much appreciated by all those who were able to accept Mr. Veitch's kind invitation.

Royal Horticultural Society.—One hundred and twenty candidates were elected Fellows of the Society on the 26th ult. These included the Duke and Duchess of Portland, the Countess of Gosforth, the Countess Russell, the

Dowager-Duchess of Sutherland, the Viscount Baring, Lady Knightley of Fawsley, Sir Samuel Montagu, Bart., Lady Collins, Lady Corbet, Lady Dunglass, Sir W. B. Forwood, Vice-Admiral Sir George Nares, Sir Condy Stephen, the Hon. Mrs. Elliot, Mr. Alfred Ashworth, and Mrs. Reginald H. Cholmondeley. The next show and meeting of the society will be held in the new Hall on Tuesday next, when a medal will be specially offered for a collection of cactaceous plants.

Glasgow and West of Scotland Pansy Society.—This society had its annual exhibition of Pansies, Violas, Pinks, herbaceous plants, and Roses in the Trades Hall, Glasgow, on July 20. The number of entries, which amounted to over 500, showed an increase over last year, and the quality was generally good. Mr. John Smellie, Busby, was again successful in winning the championship gold medal with forty-eight magnificent blooms of fancy Pansies. This is the sixth time that this trophy has been won by the same exhibitor. The silver cup for twenty-four fancy Pansies was won by the expert Pansy grower, Mr. Charles Kay, Gargunnoch. The attendance of florists was large, and showed that the interest in these flowers in the West of Scotland is still very keen.

Swertia perennis.—For half shady spots or peaty beds, one of the best plants in flower at present is the charming *Swertia perennis*. It is a very interesting perennial plant belonging to the Gentian family, and produces spikes 2 feet to 3 feet high of prettily spotted grey-purple flowers. When the clumps are large it makes a fine show, and as the basal leaves are always interesting, it is well worth possessing by those having proper accommodation. It is propagated by division, which may be readily done in the autumn months.

Lilium philadelphicum.—The limited number of Lilies belonging to the Isolirion or upright-flowered group are all natives of Europe and Asia, except that at the head of this note, *Lilium philadelphicum*, and the nearly related *L. Catesbæi*. *L. philadelphicum* is of wide geographical distribution, occurring as it does naturally through Canada and the Northern United States, stretching westward to the Rocky Mountains, and southward along the Alleghenies to North Carolina. From this one might expect it to thrive here, but for some reason or other it is rarely met with in a flourishing state, though from its beauty and distinctness it well repays any extra attention that may be bestowed upon it. A small circular bed at the back of the Palm house at Kew has this July been much admired for the fine display of *L. philadelphicum*. The slender stems, from 1 foot to 18 inches in height, are furnished with small, narrow leaves, arranged for the most part in regular whorls, while the terminal umbel consists of two to four or five flowers. These are about 3 inches across, the segments being of an orange red colour, marked with yellow at the base, and freely spotted on the basal half. A distinct feature of this Lily are the stalked segments of the flower, which give to it a singular appearance, by which means it can be readily detected from any other species except the allied *L. Catesbæi*.—H. P.

Buddleia variabilis veitchiana.—For many years the only fairly hardy representative of the genus *Buddleia* was the Orange Ball Tree (*B. globosa*), which was introduced from Chili as long ago as 1774. It still stands out as the only New World species that we have in our gardens, for most of the *Buddleias* are natives of China, the Himalayas, Tibet, and adjoining regions. Some of them, notably the gorgeous *B. Colvillei*, are too tender for outdoor cultivation in this country, but in a fairly sheltered position *B. variabilis*, at all events in the London district, is a delightful shrub. Even if it dies back during the winter young and vigorous shoots are pushed forth freely from the old wood, and they develop and flower the same season. The leaves, which vary considerably in size, are lanceolate in shape, bright green on the upper surface, and on the under side clothed with a whitish felt-like substance. The flowers, which are borne in long terminal panicles, are more or less of a lilac shade, but in

this respect there is quite sufficient variability to suggest the specific name. The variety *veitchiana* is greatly superior to the type, being more robust, with larger flowers and panicles, while the colour is also brighter, being a kind of deep lilac or violet-mauve, with an orange centre. It was given a first-class certificate by the Royal Horticultural Society in August, 1902, and formed a very conspicuous feature at the first meeting in the New Hall on July 26. It is also in fine condition on the herbaceous ground wall at Kew. *Buddleia variabilis* itself is a native of China and Tibet, and seeds of it were, I believe, first sent to Europe by M. l'Abbé Soulié, who forwarded them to France in 1893. It was in time distributed by M. Lemoine of Nancy. The variety *veitchiana* is one of the many good things that we owe to the enterprise of the Chelsea firm in sending out Mr. E. H. Wilson to explore the little known districts of Western China.—H. P.

The Foam Flower.—For many seasons the Foam Flower has been striving to express itself in my rock garden, but not until this spring has it justified its reputation. It often happens that one thinks slightly of a plant because it happens from one cause or another to be unhappy in its habitat, and so it was with my group of Foam Flowers. Had I discussed its merits with anyone before this spring I should have spoken of it as an over-rated plant, never having seen it elsewhere, so I am the more ready to make the *amende honorable*; hence my little picture of it, which by no means does it full

human habitation, and were growing in the open, just on the outskirts of a wood. I should be glad to know whether any of your readers who are interested in the botany of the southern or south-eastern parts of this island have ever found or heard of *G. cruciata* as being found under similar conditions. I have never seen any allusion to it as a possible "denizen" in any book on British botany, whether general or local. *G. cruciata* is, I suppose, "common" in the Alps, though I have not very often come across it, and have never found it in any abundance either in Switzerland or the Tyrol; nor, though it has the reputation of being very easy of cultivation, has it ever flourished much in my garden, and has certainly never seeded. I see in Grenier and Godron's "Flore de France" that it is common in all the mountainous parts of France, except the south and south-west, being (probably) absent from the Pyrenees.—J. C. L., Kent.

Lantana salviaefolia.—The different *Lantanas* seem year by year to become more popular both as pot plants for the greenhouse and for bedding out during the summer months, but they are nearly always seen as dwarf bushes. In No. 4 greenhouse at Kew one form—*Lantana salviaefolia*—is treated as a pillar plant, the slender shoots disposing themselves in a pleasing and informal manner, and being plentifully sprinkled with rounded clusters of lilac-tinted flowers, it stands out as very distinct from any of its associates. All the *Lantanas* are of easy propagation and culture; indeed, in the tropics some of



COLONY OF THE FOAM FLOWER (TIARELLA CORDIFOLIA).

justice. I have this group at the foot of a fine shrub of the Gum Cistus in the rock garden, and very dainty it looks against the dark green leaves. In the fading light of evening it has a fairy-like appearance, reminding me of a group of shrubby *Spiræas* in miniature. Possibly the increased rainfall of last year and of the early spring has given it the chance of distinguishing itself for which in the previous droughty seasons it has sought in vain. Division every two years, I fancy, is good for its health, besides being an easy method of increasing it. Perhaps some other reader of THE GARDEN will give his experience of the behaviour of this charming plant and the conditions under which it has prospered.—SYDNEY SPALDING, *South Darenth, Kent.*

Gentiana cruciata, a remarkable botanical "escapade."—A few days ago a lady whose residence is situated on the chalk formation in this county—what we usually call "the North Downs"—sent me a good bloom of this plant, which she had found in the course of a country ramble, with the remark that it seemed an uncommon plant—apparently a *Gentian*—of the name of which she was ignorant. She has since written to me to say that there were, close to the plant from which the flower was picked, another plant, apparently of blooming size, but without signs of flower, and from ten to twelve seedlings close to it, none further than about a foot off. The plants were found at least half a mile from any

them are among the most troublesome of weeds. Many garden varieties have been raised of late years. Particular forms are increased by cuttings in the spring after the manner of a *Fuchsia*, but seedlings are also much grown, the selected strains being very good.—T.

Two good Spiræas.—Of the shrubby *Spiræas* those with pinnate leaves are few in number, but among them is the stately *Spiræa lindleyana*, which is one of the most valuable of late July and August flowering shrubs. It is also one of the largest of the *Spiræas*, reaching as it does a height of 10 feet to 12 feet or even more, with a spread of branches greater than this. An isolated specimen well furnished with its handsome pinnate leaves is a beautiful object throughout the season, and as summer advances the flowers render it even more striking. The individual flowers are comparatively small and ivory white in colour. They are borne in large, terminal, plume-like panicles, and when at their best are most imposing. For an isolated position on the turf where the soil is fairly moist there are few, if any, shrubs more valuable than this *Spiræa*. A newer species much in the same way is *Spiræa Aitchisoni*, which differs from *S. lindleyana* in the flowers being whiter, the leaves of a deeper green, and the smooth stems being reddish. Both these species are now in flower at Kew. *Spiræa lindleyana* is a native of the Himalayas, and *S. Aitchisoni* of Afghanistan.—T.

Potatoes destroyed by frost in July.—A number of Potato growers on the north coast of Sutherland had their crops destroyed or greatly injured by a severe frost on July 20. In one district frost was experienced on June 28, and the Potatoes were only recovering when the later one destroyed them.

Yuccas at Finsbury Park.—The Yuccas at Finsbury Park are very fine just now. Several species are grown, but the most conspicuous of the whole series is *Yucca recurva* or *Y. pendula*. They are growing in what is known as the Rosery, near the Manor House entrance to the park, and they are a source of considerable interest to the thousands of visitors to this well-kept garden. Individual specimens of this beautiful *Yucca* are isolated on the grass, and their noble form is seen to advantage. One seldom sees so many specimens in flower at one time. The imposing *Yucca gloriosa* is also in flower. This distinct plant has a hand-

or three hot and dry summers previously. Seeing that last summer was a distinctly moist one, and that this was followed by a mild and moist winter season, his pet theory has been completely upset by the unexpected display this summer. Mr. Melville is anxious to elicit information on this point, and would be pleased to hear what other readers of THE GARDEN have experienced in this respect. He believes in the publication of one's failures as well as one's successes, as by these means information may be elicited that may be valuable to the whole community. Notwithstanding the hot and dry weather, the flower-beds, by the constant use of the hose, are looking very well and affording much pleasure to the visitors who throng the walks in their periods of leisure.—D. B. CRANE.

Royal Scottish Arboricultural Association.—A number of the members of the Royal Scottish Arboricultural Association had a short tour in Perthshire, beginning on July 20.

Among the places visited were Murthly and Scone, where many interesting specimens were seen. A general meeting was held at Perth on July 22, when the following awards for essays were announced: Bronze medal to Mr. Gilbert Brown, Killarney, Beaulieu, for essay on "The Output of an Acre of Nursery Ground"; silver medal to Mr. A. Moeran, Portumna, Galway, for essay on "The Sylvicultural Advantages of Underplanting"; and a silver medal to Mr. J. M. Murray, Kingswood, Murthly, for essay on "Diseases Affecting Trees." A conference on the report of the departmental committee on Forestry was held, and a discussion on the destruction caused by caterpillars to the Oak took place. A large party of the members left on July 23 en route for France, where they were to spend about a fortnight inspecting the woods near Paris and Nancy.

ROSE GARDEN.

ROSE BENNETT'S SEEDLING

THE two illustrations we give are interesting as showing the growth made by Bennett's Seedling Rose in two years. The photographs were sent by Mr. S. Heilbut, Holyport, near Maidenhead, in whose garden the plant is, and this year it has been a picture of flowers. Bennett's Seedling is one of the fine old Roses which one is apt to neglect in the search for novelties, but they must not be forgotten. As a weeping variety it is, as shown, very beautiful.

COMPANIONS TO CRIMSON RAMBLER.

It was generally thought that when *Aglais*, *Thalia*, and *Euphrosyne* were introduced they would prove to be excellent varieties to plant with the

gorgeous *Crimson Rambler*. That they failed in this object is now well known, for their season of flowering is finished before *Crimson Rambler* commences. What then shall we plant with the latter? I think it will be admitted that recourse must be had to the valuable but somewhat old groups of *Ayrshires* and *Evergreen Roses*. Where can we find a more beautiful companion to *Crimson Rambler* than in *Félicité Perpétue*, or *Bennett's Seedling*, or *Myriantes renoncule*? These are so delightfully free both in growth and blossoming that they quickly form huge pillars if planted in well prepared, deeply trenched soil. Pillars of these grand *Roses* some 15 feet in height may be had in five or six years, especially if the plants are on their own roots. There are other good varieties among these groups of which mention might be made, especially such as *Leopoldine d'Oléans*, *Splendens*, *Ruga*,

and *Virginian Rambler*. *Flora* is somewhat earlier, although it is one of the best. Other good companions to *Crimson Rambler* are *Dorothy Perkins*, *Helène*, *Waltham Rambler*, and *Psyche*. Naturally where pillar and arch *Roses* are planted extensively a prolonged flowering period is aimed at, consequently early flowering sorts are in request as well as those which flower later.

AMATEUR TEYSSIER.

This lovely *Rose* deserves all the high praise which, I think, Mr. Goodwin bestowed upon it last year. I thought at one time it was too near its parent *Souvenir de Mme. Eugene Verdier*, but apparently there is sufficient distinction to justify the raiser in distributing it. The blooms are produced abundantly, and are of a pale primrose yellow, shading to white. They are fairly large, but not too large to be useful in the garden.

ALICE LINDSELL.

This is evidently going to be a fine *Rose* for all purposes. I like the beautiful form, and when the flowers are just opening the lovely pink centre with creamy-white outer petals portrays a most attractive blending of colours. The abundance of buds, stiff growths, branching out with numerous shoots, make this *Rose* most useful for garden decoration, and when freely disbudded it will make a grand sort for the show box.

GENERAL NOTES.

COUNTESS CAIRNS.—The loose semi-double but large-petalled flowers of this beautiful novelty find many admirers, especially among those who plant for effect in the mass. The fine clusters of bloom of the tint of *Cameos*, with the strong growth of *Caroline Testout*, are both good points in a bedding *Rose*, and judging from the basketful exhibited at Holland House we have in *Countess Cairns* a most useful *Rose*, either in the garden or forcing house.

Louis Ricard.—I was surprised to read the note regarding this *Rose* in THE GARDEN recently. I quite agree with Mr. Molyneux that the variety is "really dark," but beyond that I should not go. If the variety possessed the beautiful form of *Charles Lefebvre*, we might then say we had obtained a *Rose* of sterling merit, but I doubt whether *Louis Ricard* will survive the usual two or three years' trial of a new *Rose*. I rather think it will be consigned to the vast majority of undesirables. There is without doubt room for good dark *Roses*, but unless a new variety surpasses something already in existence it is not wanted. There was a variety introduced, I believe, at the same time as *Louis Ricard*, namely, *Commandant Felix Faure*, that possesses some good points. It is a really good colour, the petals lit up with vivid scarlet; it is free-flowering and also grows well.

John Ruskin.—This handsome *Rose* will be very welcome, although it seems to be more of a Hybrid *Perpetual* than a *Hybrid Tea*. It reminds me much of *Jeannie Dickson* in colour, but one can see a deal of Mrs. W. J. Grant in its habit. The petals are stiff, arranged in a conical form, and the flowers are delightfully fragrant. The growth is very good, certainly as free as *Jeannie Dickson*, and altogether the variety possesses merit of no mean order. PHLOMEL.



ROSE BENNETT'S SEEDLING (TWO YEARS AGO).

some and branching stem, bearing an immense number of almost white flowers. The plants of this *Yucca*, as well as that of the first-mentioned species, are from seven to ten years old, and they appear to revel in the not too pure atmospheric conditions that prevail within a radius of three or four miles of the City of London. In the borders there are several examples of the stemless species known as *Yucca flaccida*. This is a charming plant, and the most is made of it at this establishment. Again, of *Y. gloriosa* there is a fine specimen of some thirty years of age, and this is now an immense clump with numerous crowns. There is always one or another of these in flower. Mr. Melville is much interested in the flowering of these *Yuccas*. He has always held to the theory that to induce the *Yuccas* to flower satisfactorily it was necessary for the plants to experience two

THE AURICULA—AUGUST.

AURICULAS are now showing signs of renewed activity, after a time of comparative rest since the flowering season. Presuming that the plants were potted in May, all those requiring more room should be shifted into larger pots, and every encouragement given to their growth for the production of a fine truss of bloom in the coming spring. Young vigorous offsets taken at the time of potting, and also seedlings, should be potted on. Seed may be sown as soon as ripe, or kept till early spring. Time is saved by the

former method, as seedlings may with care be brought into flower within a year. Green fly must be kept down by fumigation. A sharp look-out must be maintained against the depredations of a small maggot which bores a hole into the heart of the plant, and unless detected will quickly destroy it. A small green caterpillar sadly disfigures the foliage by eating small holes in the leaves, and if not destroyed causes serious injury to the plants.

Bishop's Stortford.

W. SMITH.

NOTES ON HARDY PLANTS.

BORDER AND ALPINE FLOWERS AT STIRLING.

ONE of the best private collections of hardy border and alpine flowers in the neighbourhood of Stirling, N.B., is that belonging to Mr. R. Kidston, and cultivated in his garden at Clarendon Place there.

The garden is not very extensive, but it is well kept by Mr. Kidston and his gardener, Mr. Sparks, and in consequence the plants are successfully grown. In front of the house there are some rock plants suitable for a shady position. These comprise such things as Saxifrages and other plants which will thrive under these conditions. The border flowers are principally representative of the best genera and the finest species and varieties. Thus there is a choice collection of

Liliums, noticeable among them being *L. Hansonii*, *L. testaceum*, and others. Among the *Enocheras* were such forms as the fine variety of *(E. fruticosa)* named *M. Cuthbertson*, which is superior to the one generally called in gardens *(E. Youngi plena)*. *Centaureas* are well represented, and include the pretty *C. dealbata*, a species not sufficiently grown as compared with the more popular forms of *C. montana*. There is an unusually good collection of the taller *Thalictrums*, and the *Phlomis*es are represented by such species as *P. tuberosa* and *P. russelliana*. *Potentillas* and *Phloxes* are in considerable numbers, and *Veratrum*s are represented by *V. viride* and *V. nigrum*. The *Phyteuma*s, not too often seen in gardens, include such species as *Scheuchzeri* and *orbiculare*, both good border flowers, and one observes also species of *Hemerocallis*, *Rudbeckia*, *Helenium*, *Dictamnus*, *Geranium*, *Epimedium*, *Spiraea*, *Polemonium*, &c., as well as the best border *Campanulas*. Mr. Kidston is frequently adding to this collection, and some of the flowers were brought by himself from various parts of the Continent. The alpine flowers are mainly cultivated in an excellently constructed rockery in a separate part of the grounds. There is a splendid plant of the rather difficult *Phyteuma comosum* doing unusually well. There is also a remarkably fine plant of *Schizocodon soldanelloides*, though not so highly coloured as I have seen it. The rather scarce but pretty *Iris lacustris* is well grown, along with *I. cristata*, a general favourite when in bloom. A good plant of the true *Campanula Raineri*, not often met with, is noticeable, while there is also a remarkably fine plant of *C. Allioni*, with *C. pulla*, *C. G. F. Wilson*, *C. garganica hirsuta*, and others of the choicest of the

dwarfer *Campanulas*. The fine *Cypripedium spectabile* flowers splendidly, and is apparently well established at the base of the rockery, and a carpet of *Gypsophila cerastoides* makes a good effect with its white, dark-lined little flowers.

The dwarfier *Gentianas* are also generally doing well, while such good *Geraniums* as *argenteum* and *sanguineum lancestrisense* may be taken as representing the other dwarf members of the genus here. *Primulas* are largely grown, and comprise a number of good species, while there is an extensive collection of choice *Saxifrages* of various sections, together, with an unusually good one of *Sempervivums*. *Sedums*, *Anemones*, *Dianthus*es, *Ocosma taurica*, *Veronicas*, and other good alpine plants are in large numbers in this well-managed rock garden, while *Helianthemums*, *Olearias*, *Genistas*, *New Zealand Veronicas*, and other low shrubs help to furnish it at all seasons. The glass accommodation is not large, but sufficient to keep the conservatory bright at various seasons and to undertake the propagation of alpine plants. The garden is a most interesting one, and notable not only for

what it contains, but also for the high cultivation which generally prevails. S. ARNOTT.

FLOWERS FOR WET AND SUNLESS PLACES.

FEW gardens can boast of spots where the sun never shines at any time of the year, but most gardens have places where it does not shine for six months of the year, and for only a short time during the remainder. Such places are not to be despised; in fact, they are valuable, as there are plants which do best there. Where such places are sunless by reason of the nearness of trees they are sometimes very dry in the summer, but where the shade is caused by dwellings, outbuildings, or walls they are usually moist, especially if the soil is heavy, such as we get on the boulder and London clays of the east of England. This article will treat of hardy and easily-grown plants that will thrive in damp and shady positions. These are many alpine which do well in such places, but most of them need some preparation of the soil such as is found on a recently made up rootery or rockery, and do not last long if the ground is at all heavy. I have actually seen the *Gentiana acanlis* recommended for such places, the writer saying that "it will grow anywhere." I could at least name some places where it will not grow. Where there is an almost sunless border against a wall it is using the space to very good advantage to make it a rockery or a rootery and cover it with Ferns, putting *Primroses* and *Polyanthuses* and other species of *Primula* amongst them which will bloom when the Ferns have no leaves; if the rockery is carefully prepared with soil and a good proportion of leaf-mould mixed with it—at any rate, with the surface-soil—then many of the choicer alpine may be grown upon it, and many of the old-fashioned flowers will thrive there, such as *Hepaticas* and *Auriculas*. But the rockery is a subject by itself, and we will here deal entirely with level borders or beds.

It has been stated above that some plants thrive better in these shady positions than in more favoured ones. A notable instance of this is the *Dicentra spectabilis*, specimens of which I have seen 3 feet to 4 feet high and 6 feet through in the most shady positions, remaining in beauty until July, whereas in sunny positions it is generally over by the end of May. It pays for good feeding as much as anything, and should have a change of position, or, at least, of soil, after three or four years. The *Solomon's Seal* (*Polygonatum multiflorum*) is another similar instance. I have seen its handsome shining leaves in full beauty in August in a corner of the garden where, as far as I know, the sun had not shone for fifty years, and the stems were 3 feet to 4 feet long. This and the preceding are very fine when cut for mixing together in large vases. Both of them cover a good deal of ground when growing vigorously without really occupying it, and early spring-flowering bulbs like *Snowdrops*, *Corydalis bulbosa*, and *Crocuses* may well be grown near them, or the ground round them may be carpeted with the *Moneywort* or *Creeping Jenny* (*Lysimachia Nummularia*) or *Veronica repens*, the brilliancy of the yellow blossoms of the former being very effective amongst a mass of greenery, quite lighting up dark places.

The *Winter Heliotrope* (*Petasites fragrans*) is much appreciated in mid-winter, and its large Colt's-foot-like leaves are not without beauty in the summer; but it is a dangerous thing to introduce anywhere near shrubs, as it spreads feet, or even yards, in a single season, and the moister the ground the better it likes it. Such old-fashioned favourites as *London Pride*, *Lilies of the Valley*, *Primroses*, *Polyanthuses*, *Daisies*, and *Pansies* are only mentioned because their omission would be remarkable. The *Leopard's Bane* (*Doronicum plantagioeum*) is very showy in April and May, with its large, yellow Daisy-like flowers, and it will grow well in all positions, and perhaps a little more compactly in the full sun, but it is a valuable plant for wet, shady places. The best sort is the variety *excelsum* (syn. *Harpur Crewe*). The *Hellebores*, which include both the *Christmas* and the *Lenten Roses*, form a large shade-loving class,



ROSE BENNETT'S SEEDLING (PRESENT YEAR).

and require some little care in many soils, though we are often told that they will grow in any good garden soil. One of the secrets of their culture is to leave them undisturbed. The Funkias, or Japanese Plantain Lilies, are essentially shade-loving plants, for if exposed to the hot sun the spikes of bloom very often wither by the end of June or beginning of July. They are grown more for their foliage than for their flowers. They should be divided when the crowns get at all congested, making new plants of the outside pieces and throwing the old middle part away. If the plants are put in groups of half a dozen spring-flowering bulbs may be grown between them, and the Funkia leaves will cover up the space later.

One of the most beautiful things for shady places is the Japanese Anemone, and the best is the single white, especially the variety called Honorine Joubert.

A charming little low-growing plant for moist places is the *Spiræa filipendula* fl.-pl. A hot June sun will often shrivel up the blossoms before they open. Its foliage is very beautiful; it pays to divide it every two or three years. The old-fashioned red Pæonies, too, will do well without much sun, especially if there is moisture, in which case they will remain green throughout the summer, and look like low-growing compact shrubs if they are kept tied up, and that should be done before the wind and rain has beaten them down. They are gross feeders, and if large heads of bloom are wanted, and these in great numbers, they cannot be fed too well. Good plants for an edging are the perennial Candytuft (*Iberis sempervirens*), London Pride, Daisies, Veronica repens, and some of the Saxifrages. The old-fashioned Columbines do as well in wet places as anywhere else, but the long-spurred ones do not as a rule. The hardy perennial yellow Mimulus (*M. lutea*) makes a brilliant show in May, but does not last long. No amount of wet harms it. Other plants which are more or less suitable are the Trilliums or Wood Lilies, the Winter Cherry, though in unfavourable autumns the calyces do not colour so well as in more sunny places, Hepaticas, if the soil is not too heavy, herbaceous phloxes, various forms of *Scilla campanulata*, Foxgloves, Periwinkles, especially the small blue and double pink varieties, Orange Lilies, &c.

It will thus be seen that the choice of plants for wet and sunless positions is by no means a very limited one, and it is hoped this article will be the means of enabling some of your readers to make better use of such places than they have hitherto done.

ALGER PETTS.

TREES AND SHRUBS.

THE ROCK ROSES.

ROCK ROSES, or at least a few of them, are known to all who have an interest beyond the common things one sees in gardens, for apart from their wondrous flower beauty they have a peculiar interest, having been tended with loving care by Parkinson as early as the beginning of the seventeenth century, at which period several of the finest Rock Roses we have in our gardens now were first introduced from the sunny South. They are, in fact, true old English garden flowers, for there is scarcely one that could be called a modern introduction. Judging from what we gather from old garden books, they must have been more numerous fifty or sixty years ago than they are now, for when Sweet wrote his monograph of the *Cistinæ* in 1830 there were numerous kinds grown then that have disappeared from even our botanical gardens, ousted, no doubt, by newer, if less beautiful plants. The rarity of Rock Roses in gardens nowadays is doubtless due to the unfortunate tenderness of the majority of the species, and it is evident that we do not, as a rule, take the trouble to grow and care for tender open-air flowers as the early gardeners did. In these days of cheap greenhouses there seems to be no middle course between the absolutely hardy and the tender class of plants that will not thrive outside

a glasshouse. But we deprive ourselves of much beauty in our gardens, not only by the exclusion of Rock Roses, but by a host of beautiful warm climate shrubs and plants that only require protection during our long and often severe winters. Even in our great national garden at Kew the means of growing to perfection the Rock Roses and plants of a similar nature is still a desideratum, for there is no place between the open rockery and the great temperate house, which is quite unsuited for the growth of shrubs that must have free root room and all the sun and air it is possible to give them from the close of winter till the end of autumn. An admirable plan of growing Rock Roses was that adopted by that keen lover of plants, the late Mr. Joad, in his richly stocked garden at Wimbledon. He had a long sloping bank thrown up against a low wall, facing south, the soil being open and well drained. On the surface were great boulders half buried in the soil, and around these he planted his *Cistus*es and other half hardy shrubs. In winter he had a contrivance for protecting the plants by erecting a movable framework, over which he stretched canvas, and this was quite sufficient to protect his Levantines, Australians, and New Zealanders, as he used to call them, from injury by frost. From spring to early winter you saw nothing of the winter-protecting apparatus, and I need scarcely say that the bank was always full of interest, and during the height of summer it always had a kaleidoscopic effect of colour, always changing, always bright.

Such a simple plan might be adopted by anyone who wished to have a good collection of Rock Roses and plants of kindred nature; but in mild localities, and with a light, warm soil, many of the *Cistus*es may be grown on an open, well-drained rockery. Miss Jekyll grew numerous kinds to perfection on a simple raised bank, and I shall not forget the brilliancy of her *Cistus* bank when I saw it once in July. The conditions then for these plants are a light soil, thoroughly drained, raised, and sloped to the south, and screened from the cold winds of winter and spring. In hilly gardens these conditions occur naturally, and if there is a sunny retaining wall, such as occurs on a terraced slope, that is just the place to plant the Rock *Cistus*es that have a low spreading growth. In the rock garden at Kew some species, such as *C. corbariensis*, *C. monspeliensis*, and *C. hirsutus*, have been growing for some years, and planted as they are, high and dry, they escape the damp and cold of winter without much harm.

Without attempting a full and detailed account of the Rock *Cistus*es now in cultivation, I will mention some of the best that could be grown well in any garden in the neighbourhood of London and south of it, and even in more northerly gardens where the soil is light and the situations naturally mild, such as those near the sea, and without much trouble beyond planting them well at the outset and taking care of them during the winter.

The two largest growing kinds, and at the same time the hardiest, are the Ladanum Gum *Cistus* (*C. ladaniferus*), and the Laurel-leaved Rock Rose (*C. laurifolius*), both extremely beautiful. The Ladanum Gum *Cistus* was introduced from Spain by Parkinson in 1629, and has been in our gardens ever since. It is an evergreen shrub of somewhat erect growth, and rises when full grown 5 feet or 6 feet in height. It may be recognised at once by the deep green on the upper surface of the leaves, and by the whiteness of the undersides. The profusion with which it flowers during June and July makes it one of the most beautiful in the genus. The blossoms, each nearly 2 inches across, with white crumpled petals, are conspicuously blotched with yellow. In the variety *maculatus* the petals are adorned with a large deep crimson blotch. For several weeks at midsummer this species is an object of great beauty, so profuse are the flowers, and as it is the hardiest of all the *Cistus*es, it may be grown in a mass as a lawn shrub. The spotted variety (*maculatus*) is, I think, one of the finest of all open-air shrubs, and is one of the few obtainable in nurseries.

C. laurifolius has larger and paler green leaves than *C. ladaniferus*. The flowers also are white

and blotched with yellow. It is a larger growing and hardy shrub, and makes a beautiful object on a lawn in a group with others.

C. florentinus.—Among the dwarfier species perhaps this is the most beautiful, but unfortunately it is not often seen in gardens, although its spreading growth is very charming and distinct. Its flowers are each 2 inches across with snow-white petals blotched with pale yellow at the base. It blooms plentifully in June and July. It is an Italian plant, and in close affinity with the Montpellier Rock *Cistus* (*C. monspeliensis*), which, as its name implies, grows wild about Montpellier. This has been in English gardens for over two and a half centuries, since the time of Gerard. The flowers are smaller than those of the Florentine *Cistus*, but are also white and plentifully produced.

C. Clusi is a lovely little shrub from Spain and Portugal. It grows from 1 foot to 2 feet high, and forms a compact, dense mass of foliage, and at midsummer is covered with snow-white blossoms. Other white-flowered species to be found in good collections include *C. hirsutus*, *C. salviaefolius*, *C. lusitanicus*, *C. latus*, *C. cyprius*, *C. corbariensis*, *C. populifolius*, and *C. obtusifolius*. These are all worth growing, but those who seek to make a collection will find that there are numerous other white-flowered species to be added to this selection.

The species with purple flowers are few, and all should be grown on a *Cistus* bank. The best known is

C. purpureus, the large purple-flowered kind that one frequently meets with in warm southern gardens. It is a free-growing bush, reaching 3 feet or more in height, having large and more or less wrinkled leaves of pale green. The flowers are large, of a bright reddish purple, with a crimson or deep red centre, and are borne in clusters of two or three from June up till the end of August.

The Cretan *Cistus* (*C. creticus*) is dwarfier and more tender than *purpureus*. It also has wrinkled leaves, and the large purple flowers have yellow blotches at the base instead of crimson. *C. villosus* may be distinguished at a glance by the Sage-like leaves, and when in flower by the more or less lilac-purple flowers. It grows about 3 feet high and makes a dense bush. Similar, if not identical with it, are *C. incanus* and *canescens*, and a few others with purple flowers, including *C. crispus*, could be added to make a full collection.

THE SUN ROSES.

Besides the true *Cistus*es there are some species of *Helianthemum* (the Sun Rose) that are known in nurseries and sold erroneously as *Cistus*. These include *H. formosum*, the beautiful little yellow-flowered species catalogued as *Cistus formosum*, one of the gems of a large genus. The Sun Roses so closely resemble the Rock Roses, and require the same kind of treatment, that they should be grown together. As a rule they are much hardier, and well adapted for any sunny bank. They have been so frequently described in THE GARDEN that there is no need to allude to them here. Wherever warm sunny banks occur in a garden they should be clothed with such plants as Sun Roses and Rock Roses, remembering that the former are hardy, and require little or no care after being well planted, while the Rock Roses require protection during spells of severe winter weather. It is always advisable to keep duplicates of *Cistus*es and other tender shrubs in pots in frames, so that in case deaths occur the plants may be replaced. There are several hybrid varieties of *Cistus* already in gardens, and if some hybridist turned his attention to them he would doubtless increase the number and perhaps raise hardy varieties if he could intercross with *Helianthemum*. The experiment is quite worth trying.

W.

SEASIDE SHRUBS.

THE number of shrubs that succeed when exposed to salt spray is but limited, and on that account the few that do thrive well under such circumstances are doubly valuable from a planter's point of view. Such is the Tamarisk (*Tamarix gallica*), a vigorous-growing shrub, producing long, feathery branches terminated during the summer by loose open panicles of small reddish

flowers. This shrub delights in a deep sandy soil, well supplied with moisture, requirements frequently met with near the sea, and for such places it is indispensable. This and the Furze form fine bushes even on the most easterly part of the coast of Suffolk. *T. tetrandra* is a scarce Caucasian shrub, and is quite as elegant as the common *T. gallica*, and flowers later, which is its chief value. It is little known apparently in this country, though it is to be found in Continental arboreta. A near ally of the Tamarisk and one that succeeds well under similar conditions, is the German Tamarisk (*Tamarix* or *Myricaria germanica*), a slender upright-growing shrub, which bears great general resemblance to the foregoing, but which only attains about one-half its height and has longer leaves. The Sea Buckthorn (*Hippophae rhamnoides*) is another shrub well adapted for planting in the most exposed spots, as strong winds off the sea have but little effect upon it; indeed, the beautiful silvery appearance of its foliage is much heightened when stirred by the breeze. Besides the glistening white colour of the foliage during the autumn, it becomes laden with bright orange-coloured berries, and when in that state is remarkably handsome. The Sea Buckthorn is a large prickly shrub, which under favourable conditions becomes almost a tree. The tree Purslane (*Atriplex Halimus*) is a loose rambling plant, with brittle, half woody branches and silvery leaves, of little beauty when grown under ordinary conditions, but by the seaside, where plenty of moisture exists, a really valuable shrub; it succeeds perfectly in such places, and forms fine masses totally indifferent to the salt spray. Of this there is a smaller kind, a native of Britain, viz., *A. portulacoides*, but it is insignificant compared with the preceding. Among other subjects fit for seaside planting, but requiring to be a little sheltered from the full force of the wind and spray, may be named many of the Leguminosae, as, for instance, the Spanish Broom, the Laburnum, the white Broom, *Halimodendron argenteum*, and the *Coluteae*. These are among the most suitable, while, under like conditions, the Elder, Box Thorn (*Lycium europæum*), the Tree Groundsel (*Baccharis halimifolia*), and the various kinds of Lilac will also thrive.

Among evergreens mention may be made of the different varieties of *Euonymus japonicus*, the Arbutus, Laurustinus, and Portugal Laurels, while trees that may be specially noticed doing well near the sea are the Evergreen Oak, Austrian Pine, the Cluster Pine (*P. Pinaster*), the Mountain Ash, and Cupressus. All the above are well-trying subjects, and sure to succeed in almost all positions. For planting on the southern coast there is a much wider range to choose from. Even Veronicas there make useful seaside shrubs, and the same may be said of Fuchsias, the lemon-scented Verbena (*Aloysia citriodora*), Myrtles, and the Pittosporums, which form handsome bushes, while by far the finest plant of the beautiful white Heath-like flowered *Fabiana imbricata* that has ever come under my observation was growing in a small garden close to the sea on the coast of Devon. There it formed a large bush, and when in full flower was most conspicuous. P.

WATERCRESS, AND HOW TO GROW IT.

WHETHER seen upon the tea, dinner, or luncheon table, the green, crisp leaves of freshly-gathered Watercress—suggestive as they are of pebbled brook and purling stream—are as pleasing to look at as they are wholesome for eating, and it seems a pity that nowadays so many people should be debarred from using them. The bare idea that they have been cultivated in polluted plots instead of being gathered from the pure water of a runoing stream is quite enough to set us against them and to prevent us from tasting any, however tempting

the sprigs may look and however carefully we may know they have been washed; but that there is some element of risk in buying and eating unauthenticated Watercress is undeniable. There is only one thing to be done, and, happily, it is easy of accomplishment—it is to grow the Cress ourselves—and anyone can manage it who has a yard or garden and a fair supply of water. A Fellow of the Royal Horticultural Society has recently pointed out one method of growing the healthful Watercress that is very simple. "Choose," he says, "for convenience a spot near a garden tap; take off 4 inches or so of the surface-soil from the plot, say 3 feet by 2 feet, and slightly puddle the sides and bottom with clay, but not ramming it so firmly as to prevent the water percolating sufficiently to avoid stagnation. Nearly fill this artificial basin with good soil, and in early spring plant it with cuttings of fresh green Watercress, obtained from a wholesome source. Keep the soil moist, and the cuttings will soon spread and cover the bed; and if small, clean pebbles can be strewn over the surface they will keep the roots moist and the leaves clean when the heavy rain would otherwise spatter them with mud. Seed can be used if good clean cuttings are not obtainable, but several weeks' growth is gained by planting cuttings."

Another way of growing Watercress in one's own garden has been tried by the writer with good success. In this case the water was supplied continuously, or nearly so, from a large trough that was filled every day, and from which a trickling stream was allowed to run along a little wooden channel on to a sunk square bed where Cress was planted. It grew luxuriantly, and in summer time had a pleasant, cool appearance that was quite refreshing. A few water Forget-me-nots were allowed to grow beside the Cress, but no other flowers. It really was a Watercress bed, made for use, and not a water garden; but in these days when water gardens are so much the fashion it is surprising that the useful and hardy Cress is so generally left out and forgotten.

There is another advantage in growing Watercress ourselves, and not a small one either. We can then be quite sure it is the edible Cress we are enjoying and nothing else that is less wholesome. There is a water-plant whose right name is the Water Dropwort, whose dark green glossy leaves so much resemble those of the real Watercress that it is a wonder mistakes between the two are not more frequent, but sometimes they do happen. Only a short time ago a party of excursionists in Wales, mistaking the one for the other, ate a quantity of these Water Dropwort leaves, with the result that many of them were seriously ill, and in 1900 a gang of convicts working in a ditch near Woolwich had a still worse experience. Seventeen of them ate the supposed Watercress, and according to the correspondent of the *Pall Mall Gazette* nine were seized with convulsions and six died with every symptom of delirium and tetanus, though they had eaten but a small quantity. A very little care and the smallest possible experience, however, are sufficient to eliminate all risk of accident in the gathering of Watercress. The only plant for which it can well be mistaken has hollow leaf-stalks and serrated leaflets, which the true Watercress has not.

In England we do not make nearly so much use of the Watercress as they do abroad. Both in France and Switzerland it is used as a vegetable, being cooked and eaten with broiled steaks and roasted chicken, spread over which it looks pretty and tastes good. With us it is almost always eaten raw. Even so it is worth the trouble of cultivating. By way of an improvement to the simple sandwich, or to add a piquancy to the hard-boiled eggs and bread and butter of the traveller, few things are more desirable in their way than the pungent yet cooling Watercress. F. A. B.

Genista sagittalis.—Referring to "S. W. F.'s" note in THE GARDEN of the 23rd ult., I may add that I saw abundance of this plant in flower on dry banks in railway cuttings between Sarajevo and Travnik in Bosnia early in May this year.—E. R. BERNARD, *The Close, Salisbury.*

THE FLOWER GARDEN.

PLANTS SUITABLE FOR RUINS, WALL-TOPS, AND OTHER DRY PLACES.

IN speaking of plants for the purposes specified in the heading, it should be borne in mind that, though some may be seen flourishing and happy in such places, it is a very difficult matter oftentimes to plant and otherwise establish them in private gardens. For one thing, when one sees plants flourishing in a wild state in such dry situations, it has come about by the rule of the "survival of the fittest," and though there may be abundance of plants apparently growing comfortably, they may constitute but a small proportion compared with those that have failed to survive; whereas in artificial planting we may bemoan our want of success if we do not succeed with a comparatively few specimens that have engaged our efforts. The closest observer who carefully notes the minutest details as to the conditions under which wild plants are flourishing will be more likely to succeed if he follows the hints of Nature. Of course, if some reasonable provision is not made for the roots and ample care bestowed, as by periodic waterings, when the plants have been put in position so as to sustain life until they get a natural attachment to the stone and soil, nothing less can be expected than that the plants will shrivel up and die the first hot or windy day.

When you can manage to establish flowers on ruins or dry walls you create one of the most interesting and beautiful garden effects; but in setting about a business of this kind, it should be kept in mind as being advisable that, whatever is grown on high places, the plants should have the habit of springing up considerably or drooping over the edges, so as to be visible from the surrounding and lower promenades. It is not always the case that plants which are seen to thrive on and decorate what appear to be dry places and sunny rocks will do for ruins and wall tops, because on such structures there is not the amount of moisture contained in the rooting medium as occurs in natural formations, which get the benefit of moisture by capillary attraction in a greater degree. This point may be proved by anyone who cares to experiment, and the fact may be recalled whilst we are glancing over a few species, one by one, commonly supposed to be suited for walls and natural rocks indiscriminately, and we might as well, whilst considering the species individually, take note of their respective cultural requirements.

ERINUS ALPINUS.—This is a long time before it becomes effective and well established, and often when it means to do so it sows itself better than human hands can do it. A few plants, therefore, should be set at the higher parts.

SAXIFRAGA LONGIFOLIA is often supposed to be a fit subject for dry walls, but according to my experience it is utterly useless for such places; it will do on what seem to be dry rocks that are more cool, and get more moisture by capillary attraction.

S. LIGULATA.—Precisely the same thing may be said of this as the foregoing.

CORYDALIS LUTEA.—This is a very likely plant for walls with crumbling seams or ledges of mortar rubbish, and it may be established by seed or very young plants.

DRABAS will do in tight fissures.

ALYSSUM MONTANUM is a capital thing for walls where a slight depth of soil is provided.

TUNICA SAXIFRAGA may do, but it will require careful planting for a start, and perhaps it would be easier and better to begin with seeds.

DIANTHUS CÆSIS.—I find this an excellent thing for rather flat and broad wall tops, but it should be well packed round with stones and a rather retentive loam, and surfaced with leaf-mould and sand, and it should be periodically watered for the first season.

LYCHNIS ALPINA and **L. LAPPONICA.**—In every way these are manageable and effective.

COTYLEDON UMBILICUS and **C. CHRYSANTHUS**, and one or two other species of the same genus, are

ideal plants for walls and dry ledges. The objection, however, to these is that they are rather costly for a purpose implying somewhat liberal use.

SEDUM DASYPHYLLUM is pretty, but very small, and only fit to be in positions near the eye. Moreover, it is tender in damp climates, and is not perfectly reliable.

S. GLAUCUM is practically for such purposes the same thing as the above, with the advantages of being hardier, a more vigorous grower, and a cheaper plant to obtain in quantity.

SEMPELVIVUMS.—All or any of these are capital for covering crumbling walls with vegetation. The chief thing, however, is to plant them carefully at first. They should be flatly and securely fixed by the aid of small stones and some mortar in a wet state. Unless thus secured, they are soon disturbed by birds or blown away by the wind. To fix the Houseleeks is a business that will not admit of being done in a hurry. It would, perhaps, also be better to plant them in the spring, just when it is due for them to emit their new roots.

A few other plants that I would suggest are Thymes of various sorts; the procumbent Stonecrops or Sedums in considerable variety; not a few alpine Pinks; the orange-yellow Hawkweed for dry places that are not too sunny. Everybody knows the charming manner in which the Wall Rue Fern clings and thrives on old mortar. *Alyssum spinosum* is a quaint and curious plant, and often grows into bushes of considerable diameter. I have seen *Campanula rotundifolia* doing splendid duty on the walls of ruins, and it goes without saying that Wallflowers and Snapdragons can be made happy in the wall garden.

In fissures with careful planting many other things could be made to flourish, but to make them a success such fissures should be carefully examined, and, if necessary, a solid mass of soil to form a bed for the roots should be rammed down firmly; a good mass should also be rammed in as a backing to prevent the roots from being dried up. These provisions should be made before the plants are put into position, and the roots should then at their extremities be inclined downwards, and carefully and firmly covered with good soil. Indeed, I know no form of gardening requiring more patience and skill during the arranging of the plants than the wall garden. W.

TALL FLOWERS FOR CUTTING.

FOXGLOVES take a high place for this work, and a large batch of seedlings in an open part of the pleasure ground has been in request ever since the expansion of the first few spikes. If the size of vases or baskets will permit, it is a good plan to start with a few fronds of some large, bold, hardy Fern and allow the spikes of Foxgloves to rise, as it were, out of these. With respect to this common but very beautiful flower, let me add that when a good strain is obtained a little seed may be saved each year from the best flowers. *Montbretia crocosmiflora* is just now one of our most useful flowers, and may be used either for tall vases, cutting the spike in its full length, or for small ones, nipping off the side growths. A wonderful wealth of flower is obtainable from an established border of *Montbretias*. They should be planted deeply—nearly 6 inches—in a light, open compost, placing a little sharp sand for the bulb to rest on and pressing it down firmly. Mulch early in the winter with a 2-inch or 3-inch thickness of rough manure or leaf-soil. A batch of *Alströmarias* is

still in flower, and has furnished for a long time fine long stalks and large heads of the rich orange flowers. It is a pity these are not more extensively grown; there are few better subjects for large dark vases. I transferred a few to a well-prepared border eleven years ago, planting deeply and carefully, and they have steadily increased with each succeeding year until they have quite monopolised the border. Some of the *Spiræas* are over, but *Aruncus*, *palmata*, and *palmata alba* are still well in flower. The last spikes of *Lilium candidum* have been cut. I experienced considerable difficulty in saving them, the state of the foliage and embryo spike necessitating several dustings with anti-fungoid powder. This won the day, and, although the foliage was brown and nipped, the flower-spikes ran up to nearly 6 feet in height and developed the flowers very well. Large clusters quite 2 feet in length when required are now to hand of *Gypsophila paniculata*. This pays for a



VIEW OF PART OF THE ROCK GARDEN AT BASTON MANOR.

little extra attention at planting time, viz., that the ground should be deeply dug and well worked and receive, if the soil is rather poor, a liberal dressing of rather holding manure. *Helianthus multiflorus plenus* and *Soleil d'Or* are already giving a supply of their yellow flowers with good long stalks. I had these on rather a cold border where they did not get much sun, and the flowers were seldom out until August, but by shifting half of them to a warmer spot they are considerably earlier and the flowering season is also prolonged. Many shades of colour are furnished by the *Pentstemons*; their beautiful spikes of flowers are now utilised to fill places hitherto occupied for some time by the Foxgloves. Hardy foliage in quantity is now supplied by *Asparagus*, *Tamarix gallica*, *Taxodium distichum*, and long twigs of Hornbeam. Other outdoor plants beginning to be useful are scented *Pelargoniums* in variety and the Lemon Verbena. B.

AN INTERESTING ROCK GARDEN.

THE gardens at Baston Manor, Hayes, Kent, are full of interesting subjects, yet the rock garden is decidedly the most attractive feature. Here we find an exhaustive collection of all the most suitable plants, some in low, shady nooks, others high up among large blocks of rock. A large number of the plants were collected by the late Captain Torrens himself, and some are great rarities. The owner, having seen and collected the plants from their natural habitats, knew exactly the positions most suitable for them and the best method of forming the rock garden, and this was evidently his chief delight. The rockery is formed on a sunny slope. In the background the rocks rise up considerably, but much of it is rather flat or in rising mounds, and rock walls are formed round some of the more elevated positions. In the crevices of one of these walks a collection of *Ramondias* is planted, including *Natalia*, *pyrenaica* and its white variety, also *serbica*. The pretty little *Haberlea rhodopensis* was also doing well.

Above the wall was a fine clump of the double red Rock Rose (*Helianthemum*). This has sported back to the yellow of the normal type, but still with double flowers, and the clear yellow is an acquisition. On one plant I noted two distinct colours, and some were a mass of yellow; the large clumps of red were very showy. *Dianthus alpinus* was doing well, and a patch was finely in flower. *Iberis gibraltarica* was flowering freely, *Erodium Reichardi* and *E. hymenodes* also, and other species of the *Geraniaceæ* were flowering well, *Geranium cinereum* being very pretty. *Cheiranthus mutabilis*, a large bush, has been in flower for some time. It somewhat resembles *C. kewensis*. The deep blue *Campanula* G. F. Wilson is in fine clumps, also *C. muralis* and *portenschlagiana*, which showed a difference in shade of colour. *Veronica pectinata* and the shrubby *V. buxifolia* were also flowering freely. Another pretty blue flower was *Sisyrinchium grandiflorum*, grown from seed brought from Canada. *Vaccinium Vitis-Idæa* was very dense-growing with the small leaves overlapping each other, and covered with berries. *Cornus canadensis* was worthy of note as being among the things imported direct. *Gaultheria procumbens*, forming a large, spreading mass with its dark bronzy foliage, was very pretty.

Cotoneaster horizontalis spreading over a rock was full of flower, and will make a bright show with its berries in the autumn; *Enothera marginata*, very distinct; and close by was a good patch of *Mitchella repens*.

Saxifrages are represented by almost all known species, and many of them were finely in flower. Among those I particularly noted were *cesia*, small white flowers; *valdensis*, erect spikes of clear white flowers; *trifurcata*,

short, curiously cut leaves, spikes of pure white flowers about 8 inches high; *Salomoni*, another distinct and pretty species; *longifolia* was at its best with good spikes of bloom; *Wallacei* (Composi) is a favourite, growing freely in large clusters; *Hosti*, with tall spikes of white flowers; and *ligulata*, with strong flower-stems standing up 2 feet high; *Aizoon minor*, a tiny beauty; *Rhei Improved*, pink flowers; *retusa*, *corriophylla*, *lantoscana superba*, *pectinata*, *luteo-purpurea*, *bryoides*, *macnabiana*, *Guildford Seedling*, and numerous other interesting species.

Thymus serpyllum album and the Back-house variety of *coccinea* were very pretty. In a shady nook were some *Darlingtonias* looking very happy, also some good Ferns, among which were a very distinct *Osmunda* brought from Japan and a fine clump of *Adiantum pedatum*. The Oak and the Beech Ferns were in a thriving condition, and close by here some *Cypripediums*, but *spectabile* was the only one in flower, the others being over. *Linaria alpina* was at its best; *Arenaria montana*, flowering freely; *Hypericum repens*, just opening its flowers; and *olympicum* in full bloom. The *Shortias* do well here, but were out of flower, also the *Soldanellas*. *Silene alpestris* and some dense-growing bushes of *Mitchella repens* with deep green foliage were prominent. *Chryso-gonum californicum*, with pretty yellow flowers, was an attraction. *Dianthus deltoides*, pink,

and the white were pretty. *Morisia hypogaea* is a dwarf plant with pretty yellow flowers. *Gentiana septemfida*, just coming into flower, will make a bright patch of blue a little later. *Gnaphalium aureum* and the Edelweiss (*Leontopodium alpinum*) were very fine. *Linum narbonense*, blue; and *L. flavum*, the yellow, were just opening their flowers.

Good clumps of choice *Sempervivums* and *Sedums* were excellent; *Achillea umbellata*, silvery leaves and white flowers; *Edraianthus graminifolius*, *Polygala Chamæbuxus*, *Globularias*, and many other interesting subjects. At the base of the rockery are some small ponds with *Nymphæas*, which are just opening their first flowers. A fully expanded bloom of *W. Falconer* was very rich in colour; *Laydekeri rosea*, a pretty shade; *fulva* and *Marliacea chromatella* were also in full flower, and these will be followed shortly by other choice sorts. There is always something to be seen in flower in this beautiful rock garden, and no description can fully convey all the interesting features.

A. HEMSLEY.

GRASS WALKS IN SUN OR SHADE.

THE freedom and variety of the walks about our country seats have not been taken such

advantage of as they deserve. It is not only in the flower garden where we may have much beauty of flower, but there are many places better fitted for growing the more beautiful things which do not require continual attention or propagation. Unhappily, the common way of planting shrubberies has robbed many such walks of all grace. The great trees, which take good care of themselves, are frequently all we want, and in the older gardens we often find specimens of uncommon or rare trees, but the usual mixed plantation of evergreens, so common up to our own day, means death to the variety and beauty we may have by grass walks in sun or shade. The shrubs are frequently, for no good reason, planted in mixtures, in which the most free-growing are so thickly set as finally to cover the whole ground, *Cherry Laurel*, *Portugal Laurel*, *Privet*, and such common things very frequently killing all the rest and forming dark walls by such walks. Some of these evergreens, being very hungry things, overrun the ground, rob the trees, and frequently, as in the case of the *Portugal Laurels*, give a dark, monotonous look, while keeping the walks wet, airless, and lifeless.

Light and shade and the charm of colour are impossible in such places with these heavy, dank evergreens. Once one is free from the slavery of these evergreens, what delightful opportunities there are of growing all hardy



GRASS WALKS IN THE GARDEN OF HURSLEY PARK, WINCHESTER.

flowers in broad masses, from the handsome Oriental Hellebores of the early spring to the delicate blues and lavenders of the Starworts in October. Not only hardy flowers, but graceful climbers like the wild Clematis, and lovely corners of light and shade may be made instead of the walls of hungry evergreens. If we want the ground green with dwarf plants, we have no end of delightful things in the Ivies and other evergreens like Cotoneaster, Partridge Berry, and Labrador Tea. There is no need for the labour and ugliness of clipping.

We have lately seen one place alone with many acres of these detestable clipped Laurels hungry, and so ugly! With these grubbed and burnt, what places, too, for such beautiful things as the giant Fennels with their more than Fern-like grace, and all our strong, hardy Ferns, which want no rocks, with Solomon's Seal and Foxgloves among them.

GARDENING OF THE WEEK.

FLOWER GARDEN.

PILLAR ROSES.

MOST of the Polyantha and other free-flowering Roses are now over, and it is advisable to remove at least a portion of the old wood so as to allow sufficient room for the young growths to receive full exposure to the sun, for unless these growths are well ripened we shall get but a poor display next year.

SUMMER BEDDING.

The present month, while the summer bedding is at its best, is a good time to decide upon the alterations and improvements to be introduced into the scheme for next year's display. A rough plan should be drawn showing the sizes, shapes, and relative positions of the flower-beds, and this should be accompanied by the approximate number of plants required for each bed, so that when the arrangements for next year have been completed and approved of, it will be a comparatively easy matter to make a list of the numbers of the different plants required, and doing so at this early date leaves plenty of time to propagate the stock before the autumn frosts arrive. Care should be exercised, in taking the cuttings, not to make any gaps in the beds. If kept close and shaded from bright sunshine, Coleus, Iresine, Heliotrope, &c., will root freely if placed in a cold frame. Geraniums (Pelargoniums) will be better if placed in the open or exposed in spare frames where the lights can be put on during heavy rains. If these cuttings are sappy they will root better if before insertion they are laid in the sun for a day or two. Providing it contains a fair proportion of leaf-soil and grit, the quality of the soil used is immaterial. The sifted soil from under the potting bench is frequently found to be suitable without any addition. The cuttings, which should rest firmly on their bases, must be firmly inserted. After the first watering a daily sprinkling on dry days will usually be sufficient until the cuttings are rooted.

RANUNCULUS AND ANEMONES.

As the foliage dies away it is advisable in most localities to lift the roots, and, after ripening them by a short exposure to the sun, store them for the winter in a dry place. In the herbaceous borders frequently remove all decaying flowers, and cut down the stems of the earlier plants as their foliage ripens. Many autumn flowering subjects, such as Michaelmas Daisies, Sunflowers, &c., require staking. This, especially with the first-named, should be done as lightly as possible, or the too frequent bunching of the plants will ensue, and the grace of these Asters will be lost. As time and weather permit the borders should be well hoed.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

KITCHEN GARDEN.

WINTER SOWINGS.

A sowing of winter Lettuce should be made about this time and another a fortnight later, for winter and spring consumption. A few days lost at this period may mean failure should the autumn be cold and very wet. A good sort to stand the winter is Winter Cos, being quite hardy. In cold, damp gardens it will be necessary to grow the winter supply in frames. These should be filled up to about 8 inches from the lights and the seedlings pricked in 6 inches squares. The seed for the above supply should be sown on a south border, and the plants when ready planted out in rows 1 foot apart. Choose a rather dry and sheltered spot for them, and make the ground firm. A few boxes may also be filled with young plants, as they can be lifted into a gentle warmth should the necessity arise. At this time a sowing of Chervil should also be made, it being frequently in demand for flavouring during the winter months. The young seedlings should be thinned out to about 6 inches apart. In cold districts it may be necessary to cover with hand-lights. Land for the sowing of winter Onions should be now prepared and seed got in. Choose a fine day for sowing, and care should be taken to see that the plot is in the right condition before sowing this important crop. The seedlings from the first sowing of Cabbage are now appearing, so a second sowing should be got in, protecting the seeds from the birds as formerly.

CUCUMBERS.

Plants in frames for providing late fruits are now growing freely. Unless great attention is paid to these they will not be worth the labour. If the frames are unheated they should be shut early in the afternoon after the plants have been syringed. Close attention should also be paid to pinching and watering. If Cucumbers are to be in demand during the winter the seeds should be sown now, or the plants raised from cuttings. It is necessary that the plants should be well advanced before winter—and strong and sturdy. The best sort for winter fruiting is Telegraph. If saved from a good stock no other variety surpasses this in vigour and fruitfulness. Plants that have been fruiting through the summer will now show signs of exhaustion. The growths should receive a severe thinning and a fresh top-dressing, applying good turfy loam to which has been added some good fertiliser. Keep the house moderately warm and moist for a few days, and if the plants are sound young growths will soon appear.

PEAS.

In this district early Peas have been a great success, Sutton's Green Gem being an extraordinary cropper. Chelsea Gem, though a finer Pea, has not cropped so well, and several other dwarf varieties have been poor. Green Gem should be noted by any requiring a really good dwarf early Pea. Tall early sorts are now about over, and the stakes may be used on the late plot. Peas are looking much better since the rain, and a good late crop is now assured.

THOMAS HAY.

*Hoptoun House Gardens,
South Queensferry, N.B.*

FRUIT GARDEN.

VINES.

THE wood of the earliest Vines which were cleared of fruit last month should now be nearly ripeed. If the foliage has been syringed daily, it will soon be changing colour, when less syringing will be necessary. A good syringe, however, in the evening after a hot day helps to keep the house cool and to retain the foliage. Laterals which have been allowed more extension should now be shortened back. If it is intended to make any alteration or additions of fresh material to the borders, this should be carried out, shading and syringing the Vines well for a short time afterwards. If the drainage is good, and no examination of the borders necessary, these should be well watered inside and out, and old Vines given an occasional application of liquid manure to keep the roots in active condition some time longer. Vines in succession houses, as soon as they are cleared of

their fruit, should be syringed with some insecticide thoroughly to cleanse the foliage. Liberal root waterings should be given. Freely syringe the Vines morning and evening, and keep the ventilators wide open day and night. For vigorous young Vines close the house with sun-heat in the afternoon, afterwards opening the ventilators for the night. There is nothing like sun-heat and plenty of air for ripening the wood.

Shade the midseason houses where ripe Grapes are hanging. There is nothing better than their own foliage and a little extra lateral extension. Where, however, this is not sufficient give a light shade by placing fish netting over them. White Grapes require plenty of light to colour them properly. If the shoulders of these show signs of shrinking place a sheet of tissue paper over them. Keep the atmosphere of the house cool and not too dry.

LATE GRAPES.

Danger of scalding of berries of the variety Lady Downe's will now have passed. The houses should now be ventilated freely, and closed early with plenty of sun-heat and moisture. Keep the ventilators closed until 6 p.m. or 7 p.m., when a little top and front air should be admitted for the night. A little fire-heat will be necessary on cold nights and in moist districts. Go over the bunches and freely thin out any berries which are crowded or seedless. Late Vines are generally cropped heavily, and should be liberally treated with supplies of liquid manure until colouring is well advanced, when clear water only will be required.

Impney Gardens, Droitwich.

F. JORDAN.

INDOOR GARDEN.

MALMAISON CARNATIONS.

THE plants that were layered as previously advised are well rooted, and are being potted into 3-inch and 4-inch pots. Every detail in their culture should from the beginning be given full consideration. The pots should be clean, and must be well drained. The compost may consist of two parts good turfy loam to one of leaf-soil, with some sand. Equal parts peat and loam are also recommended. If the latter is strong and retentive add coarse sand and sufficient old mortar rubble to keep it porous. Pot with care and consideration, and, providing the compost at the time is in proper condition water will be unnecessary for some days afterwards; syringe amongst the pots and about the stages, however. The cold frame in which a stage can be fixed so as to raise the layers near the glass is the best position in which to place them for a little time. During the day they will require shade. Except for a few days after potting give plenty of air, and if the weather is favourable at night remove the frame lights altogether.

NERINE FOTHERGILLI MAJOR.

These plants have for a time been stored away to rest, and have been kept very dry at the root. The bulbs are now beginning to send up their flower-spikes, and a small quantity of water may be given. Leaf-growth will soon commence, and then a little Clay's Fertilizer sprinkled over the surface of the soil, together with occasional doses of liquid manure, will assist materially in the development of strong, good growth. As they come into flower remove them from the cool pit in which they have so long been situated to the greenhouse, where they will show to advantage.

VIOLETS.

For an early autumn supply of flowers no time should be lost in getting a batch of the earliest and best plants put into the pit or frame in which they are to flower. In removing them from the border every care should be exercised. In order that they may soon establish themselves in their new position avoid mutilating the roots, and press the new soil firmly about them. A good soaking with water from a rose-can should at once be given, and for a few days keep the frame-lights closed and shaded from hot sunshine.

SHOW AND FANCY PELARGONIUMS.

The flowering season is over, and now cut back the plants to within half an inch of the previous

season's growth. For a few days withhold water from their roots, and when the check through hard pruning has been overcome the plants will soon send forth new growths. More shoots sometimes appear than are required, and the weakest of these should be removed, those that remain being encouraged to grow strong by keeping the plants well syringed and affording them abundance of air and light when in the cold frame.

J. P. LEADBETTER.

The Gardens, Tranby Croft, Hull.

ORCHIDS.

THE ODONTOGLOSSUM HOUSE.

THIS house will require a lot of attention to keep the plants healthy with such weather as we have had lately. It has been very trying to the cool and moisture-loving Orchids, and so long as it lasts damping down must be frequently carried out in addition to overhead sprayings. It also does good on warm nights to syringe them overhead about 8 p.m. Many of the plants that flowered during the early part of the year are now sufficiently advanced to enable repotting being done. Among those now ready are *O. cordatum*, *O. Halli*, *O. triumphans*, *O. luteo-purpureum*, *O. cirrhosum*, *O. crispum*, and the varieties of the above species. Although we have seen a very great advance during the past few years in the general cultivation of the *Odontoglossum*, I am afraid repotting is often left too late. Those plants given fresh material once a year have generally given us the finest spikes of flowers, yet even the changing of the material is only part of the necessary work. Cutting away of the back pseudo-bulbs is another very important factor. These old bulbs take away much of the substance that should go towards building up fine pseudo-bulbs and strong spikes. During the time they are lying practically dormant they should not be allowed to remain very dry, but just to become fairly so before more water is given. As the new growths advance the supply of water should be gradually increased.

Often the house that is given to these Orchids is not at all suitable. Many think that because they prefer abundance of shade during the spring, summer, and early autumn months a house with a north aspect is suitable. I should say that such an one was the worst possible; it is not advisable to have anything obstructing the light that cannot be removed when desired. The house I prefer is one that runs north and south and has plenty of bottom ventilation and a continuous lantern ventilator on the roof. I often think that detail is not sufficiently thought of, and many houses at the present time in which the plants are not happy could, by having more bottom ventilators, be converted into first-class *Odontoglossum* houses.

Much has been written from time to time on the details necessary to grow these Orchids, yet a great deal requires further enlightenment. Other readers of THE GARDEN may be able to give their experience regarding the structure and cultural details, which would all lead to a better understanding of the requirements of this now popular Orchid.

W. P. BOUND.

Gatton Park Gardens, Reigate.

THE KITCHEN GARDEN.

THE POTATO CROP.

LAST year, about this time, when rain was falling every day, considerable anxiety was felt for the welfare of the Potato crop, and the tell-tale blotches on the leaves, which denote the presence of the dreaded disease, were to be observed on every side. As matters turned out the anxieties were by no means groundless, and Potatoes were among the disappointing crops in the disastrous season of 1903. How do we stand this year in regard to Potatoes? There has been little rain, and it is to be hoped there will be no disease, but will the most important vegetable crop in the garden turn out to the entire satisfaction of growers in general? I doubt it, for though cold

and wet are conducive to the spread of disease, the opposite extreme in the way of drought and burning sunshine is not favourable for the free growth of bine, and without this there can be no full return of tubers.

During the latter half of July Potatoes, like other crops, had a trying time of it, and in particularly light dry soils the tops have ripened off so rapidly that I am afraid the rain which may fall now will have little effect on swelling up the tubers, and they will consequently be small. In many cases I have taken the trouble to enquire into the origin of the seed sets of unsatisfactory patches of Potatoes, and have invariably found that they were of varieties which have been grown and grown in the same district until they are worn out, or else there was something else not quite in order at the time of planting. The fact is, not half enough attention is paid to the important principles which govern Potato culture. Scores of people who are perfectly well acquainted with the importance of frequent change of seed, and care in the preparation of sets for planting, pay little or no attention to these points in practice, and consequently they suffer through failures, particularly in seasons when climatic conditions are not entirely suitable for the Potato crop. Experience teaches us that varieties—even the best of them—cannot be expected to go on indefinitely, and in course of time their constitutions weaken and they fail. It would seem that there is a good deal more to learn about the growing of Potatoes for planting purposes, and doubtless many varieties would last longer in a profitable state if more attention were paid to the change of seed. Of late years many growers have become alive to the excellence of Scotch grown seed Potatoes for planting purposes. Last year, in spite of the ravages of disease, I had as fine a lot of Potatoes as one need wish to see, and I attribute the secret of my success to growing varieties of modern origin, and obtaining the seed from the North. This year I have every reason to feel satisfied with the appearance of the growth of my Maincrop sorts, and though it is never wise to prophesy, I feel sure that I shall lift good crops of Evergood, The Factor, The Crofter, King Edward VII., and others of this order. My own experience is borne out by others, and in the case of nearly all the best-looking patches of Potatoes I have seen, I have found that the seed sets were obtained from another district and different class of soil.

Even the best of seed tubers, however, cannot be expected to give good returns unless reasonable care is exercised in their management; and experience teaches us that in spite of the accommodating character of Potatoes, the man who is usually the most successful with the crop is he who pays attention to every detail in cultivation. Too often seed Potatoes are treated in a most slipshod manner. They are left in heaps to waste their energies in making growths which are absolutely of no use, instead of being carefully stored in such a manner that the forces in the tubers are conserved until the latter are put in the ground. In experiments which have been tried, none are more useful than those which prove how much the yield may be increased by careful selection and proper treatment of the sets prior to planting. As most people are aware, we have entered this year on what may be termed a new phase of Potato culture in the shape of propagation from cuttings and raising crops from plants put out of pots. The sensational boom of new varieties is, of course, responsible for it, the object being to increase stocks of high-priced novelties at express speed. The time has come when we may venture to ask how Potatoes are responding to this kind of treatment, and from reports to hand the outlook is not altogether encouraging. I paid a visit to a garden the other day where some high-priced Potatoes were purchased in the spring, and from these a large number of plants were obtained by means of striking cuttings. The grower now is sad at heart over his novelties, which are the most sickly-looking patch of Potatoes in the garden.

I am told that the people in Lincolnshire are not quite so enthusiastic about Eldorado as they were,

and that many of the breadths of this variety, the plants of which were propagated from cuttings, are presenting anything but a promising appearance. Perhaps one of the Lincolnshire correspondents of THE GARDEN can tell us how far this is correct, because many people just now are anxious to see how cutting-raised Potatoes will turn out. Certainly the weather in the early part of the season was not particularly favourable for plants so raised, and the cold winds of early June doubtless played havoc with crops which were fully exposed. The way in which the varieties that were so cleverly boomed in the spring will acquit themselves this year will not only decide the question as to whether Potatoes in the future will be propagated largely from cuttings, but it will also have an effect on the continuation or the cessation of the boom.

G. H. H.

VEITCH'S SELECTED EARLY FORCING CAULIFLOWER.

FOR early use this Cauliflower is unsurpassed; its regular size, compactness of head, pearly whiteness, and fine flavour recommend it as a first-class variety during the end of May, June, and July. If sown in boxes in a gentle heat early in January, potted off into 3-inch pots, grown on until the end of February in a nice warmth, gradually hardened off, and planted out in a well-prepared quarter the second week in March, it is ready about the end of May and lasts into July, when the variety Walchere is ready for use.

Warren House Gardens.

C. J. ELLIS.

THE INDOOR GARDEN.

ACACIA BAILEYANA.

IN February of last year I saw for the first time this charming shrub in flower on the steep slopes in the nursery of MM. Nabonnand, frères, Golfe-Juan. It attained a height of about 2 mètres. Long bunches of golden blossom over its very elegant bipinnate foliage formed delightful clusters. *Acacia baileyana* was described by Mueller in Australia in 1887, and introduced later to the Botanic Gardens, Cambridge. The plant had been kept in a cool greenhouse, though in the climate of England and France it should be grown in the hot-house. One can therefore scarcely form an idea of the beauty to which it attains when it grows and flourishes under the sun of the coast of Provence. From a slender though strong stem the branches spring, at first erect, and then spread with the weight of their foliage. They are of a beautiful glaucous green. The leaves, disposed at right angles on the branches, have short petioles, are bipinnate, and bear two or three pairs of short leaflets. The flowers are disposed in loose lateral bunches. *A. baileyana* came originally from Queensland and from New South Wales in Eastern Australia. This newcomer will soon be widely distributed, for M. Nabonnand is multiplying it by grafting upon *Acacia floribunda*. We have also received some good seeds from MM. Haage and Schmidt, seedsmen, Hamburg. This will still further facilitate the diffusion of this pretty novelty, which will vie with *Acacia dealbata*, *cultriformis*, *cyanophylla*, *armata*, and other charming *Mimosas* hardy on the coast of the Mediterranean.

ED. ANDRE, in the *Revue Horticole*.

FUCHSIAS AS BASKET PLANTS.

IN the lists of various plants that are advocated by different writers as suitable for growing in suspended baskets the *Fuchsia* seldom finds a place, yet how beautiful some of the varieties are when treated in this way; for the entire plant in habit, the manner in which the flowers are borne, and the flowers themselves all show their adaptability for such a purpose. For conservatories they are well suited, for they grow quickly, and will, therefore, soon furnish a large basket, while, in common with the same varieties when grown in pots, a succession

of flowers is kept up for some time. The great point to bear in mind with all plants grown in hanging baskets is to allow as good a provision as possible for the roots and to see that they do not suffer from want of water, as in a greenhouse or conservatory they, of course, will dry more quickly than in a stove which is heavily shaded and frequently syringed. A judicious disposition of hanging baskets certainly does a good deal towards relieving the hard and formal lines of the various glass structures in which plants are grown, and loose-growing subjects such as the Fuchsia are unsurpassed for this purpose. A good deal of the success or otherwise attending plants grown in suspended baskets depends upon the manner in which these are planted as well as on their after treatment. They must in the first place be thoroughly lined either with broad flakes of moss or with turf, which latter is the better if it is of a tough fibrous nature. The soil used, too, should be such as will give up its nourishment slowly, otherwise it may quickly become exhausted. For such plants as Fuchsias a good fibrous loam with an admixture of decayed manure or leaf-mould will be the most suitable. All the material used must, of course, be well secured, and a few pegs will be of service in this respect. A very good plan in filling hanging baskets is, if possible, not to consign them to their elevated position before the plants are established therein, as they can be better attended to when near the ground. The watering of hanging baskets is always an important item, and many cases of failure are attributable to an insufficient amount of water. Naturally enough, if elevated near the glass the atmosphere is very dry, the conditions being, therefore, favourable for red spider, which, unless checked, will soon destroy the beauty of many plants; hence they should, if possible, be prevented from effecting a lodgment on the leaves. If the plants receive an insufficient supply of water they naturally fall a prey to red spider far more readily than would be the case if the roots were well supplied with moisture.

In selecting Fuchsias for hanging baskets those of a loose habit of growth should be chosen, as the close, compact-growing varieties, which are the most popular for pot culture, are not nearly so effective when suspended. A few good varieties for this purpose are—with white tube and sepals—Lustre, Mrs. Marshall, and Mrs. Bright. Dark-coloured flowers, single—General Roberts, Lord Elcho, Monarch, and Mrs. King. Double—Sir Garnet Wolseley, Beauty of Exeter, and Phenomenal. With white corollas—Molesworth, Gustave Doré, and Flocon de Neige.

Among the many other plants that are available for hanging baskets in the temperature of a greenhouse or conservatory may be especially mentioned the looser-growing forms of Ivy-leaved Pelargoniums, both single and double, the Unique section of the scented-leaved class, of which the showiest is Rollisson's Unique, a beautiful rich purplish coloured flower. If the winter conditions be favourable, this last will bloom nearly throughout the year. Tropæolums are very useful, especially such as Ball of Fire, Clibrau's Gem, and Peter Rosenkranz. These are propagated by means of cuttings, hence they are more free-flowering in a young state than seedlings. Achimenes, too, are really beautiful during the summer months and give but little trouble. Of late years attention has been several times directed to the beauty of some forms of the tuberous Begonia when grown in suspended baskets, especially such as are of a loose habit of growth with drooping blossoms. The variety worthiana, which is in some places extensively grown for bedding, with its narrow orange-scarlet blooms, is one of the best for this purpose. That evergreen fibrous-rooted form, with rather small reddish salmon-coloured blossoms, known as undulata or glaucophylla, is a good basket plant, and in a rather higher temperature some of the others can be used in the same way. Othonna crassifolia, with thick glaucous flowers and yellow blossoms, does well in a suspended pot or small basket, and Petunias often make a goodly show treated in this way. There are many other subjects available for basket culture in the greenhouse, and in the stove the list might be consider-

ably extended. Grass-like plants of a straggling nature look well in baskets, especially in conjunction with other subjects. A good thing and one in general use is the plant known in gardens as Panicum variegatum, and another equally desirable for such a purpose but not nearly so well known is Stenotaphrum glabrum and its variegated-leaved variety. This Stenotaphrum is a creeping growing Grass that will soon cover a considerable space, and suspended it will hang down for some distance.

H.

NOTES ON LILIES.

DURATION OF LILY BLOOMS.

OWING to the hot and dry weather the individual blooms of the different Lilies did not remain long in beauty unless exceptionally situated, but whether exposed to the full sunshine or protected from it, some species retain their freshness for a very much longer period than others. The bulk of the earliest Lilies in the open ground consists of those with erect blossoms, corresponding with the sub-genus Isolirion of Mr. Baker, and as a rule they do not remain long in beauty. This feature is especially noticeable in *L. davuricum* or *L. umbellatum*, as it is often called, different forms of which are commonly to be met with. They are very bright and effective when first expanded, but soon become dull, though the petals do not drop for some little time after the change in colour takes place. The dwarf *L. elegans* or *Thunbergianum* is very prolific in varieties, and some of the red ones, notably *biligulatum* and *sanguineum*, change as quickly as the forms of *L. umbellatum*. The richly tinted *Van Houttei* retains the brightness of its colouring much longer than those above mentioned, while the yellow varieties, such as *alutaceum*, *Prince of Orange*, and *Alice Wilson*, change but very little before they drop. Two species of this section stand out as especially noteworthy by reason of the length of time that the flowers remain in perfection. They are *L. bulbiferum*, that flowers much about the same time as *L. davuricum*, but the blooms are brighter and remain in beauty for a very much longer period, and above all the old *Orange Lily* (*Lilium croceum*), a clump of which with me has been in flower from the middle of June to the end of July. Not only has a succession of bloom been maintained, but each flower retains its beauty for such a long time. This is certainly one of the best ordinary garden Lilies that we possess, as apart from its other features the blossoms are of a very bright and effective tint. Some of the members of the *Martagon* or *Turk's-cap* group have petals of unusual substance, and they all remain in good condition for a longer period than most Lilies. The yellow-flowered *L. Hansonii*, the *Black Martagon* (*dalmaticum*), and especially *L. chalcedonicum*, which is commonly known as the *Scarlet Martagon*, are all good lasting Lilies. *L. chalcedonicum* is, however, the best of them all in this respect, for the blooms remain in beauty a very long time, and that, too, during what is generally the hottest period of the year, for its usual period of blooming is during the month of July. The small, but prettily reflexed and brightly coloured blossoms of this Lily are very beautiful, and it should certainly be more generally planted than it is. In common with many others, it will seldom flower much the first season after planting. *L. Leichtlini*, a pretty pale yellow flower, plentifully dotted with brownish red, remains fresh for a considerable time, while there are several of about an average duration. Under this head must be included such kinds as *L. auratum*, *L. longiflorum*, *L. tigrinum*, *L. testaceum*, *L. Batemannia*, *L. Browni*, *L. canadense*, *L. Szovitzianum*, *L. pardalinum*, *L. Krameri*, *L. Humboldti*, and others. The most conspicuous of all the varieties of *L. auratum* is the red-banded *rubro-vittatum* or *cruentum*, which when the blossoms are first expanded is wonderfully bright and effective, but the coloured portion soon changes to more of a dull brownish hue, and it

is then not nearly so attractive as at first. From the fact that they do not flower till the summer's heat is as a rule a good deal abated, all the varieties of *L. speciosum* remain in beauty longer than many of those that bloom earlier in the season, for towards the end of August or in September, and even October, they remain fresh for a very long time. The new *L. Henryi* has much the same substance as *L. speciosum*, and lasts about as long as that does. The stately *L. sulphureum* (the once *L. wallichianum superbum*) is one of the later blooming Lilies, and a good lasting one, but the most noticeable in this respect of all the tube-flowered group is the *Neilgherry Lily* (*L. neilgherrense*), whose long, tube-shaped flowers are of a thick wax-like substance. This is particularly noticeable for its large massive flowers, often borne on comparatively short stems, the late season at which it blooms, that is, the last three months of the year. The short flower-stems frequently met with in this Lily are caused by the fact that in some individuals the stem, after leaving the crown of the bulb, proceeds in a horizontal or even downward direction for some little distance before it appears above ground, and when it does so the flower-stem is sure to be short. In pots the stem will often go to quite the bottom of the pot and come up on the side directly opposite to that where it went down. In speaking of Lily blooms one curious fact may be noted with regard to some forms of *L. washingtonianum*, and that is when first opened the flowers are white or nearly so, but they quickly change to a purplish hue. H.

ORNAMENTAL SEEDS AND THEIR APPLICATIONS.

PROBABLY the Colonial and Indian Exhibition of 1886 will be within the memory of many of the readers of THE GARDEN; still, some of the features of the exhibition may be forgotten, notwithstanding there were at that time, as well as at previous similar exhibitions, many object-lessons on the utilisation of the natural products of our Colonies, which, in consequence of their not forming regular articles of export, have become generally known under the term of "Minor Products." To the development of these a good deal of attention has lately been directed, as it has been shown that such products in the aggregate become of very great importance and of much financial value. Some of these minor products are of such a character as to have special attractions to all those interested in plant products, as they deal largely with the application of seeds and fruits. In the West Indian Court of the Colonial Exhibition each of the several islands of that beautiful group showed a large and attractive series of useful and ornamental articles made from native seeds, barks, leaves, and Ferns, such, for instance, as doyleys of Lace bark, hand-screens, lamp shades, pin-cushions, watch-pockets, work-baskets, and dish mats made of Wire Grass, besides the very varied applications to which the numerous ornamental seeds can be put.

Though this kind of work is sometimes looked upon in the light of ladies' fads, the fact of its being considered worthy of notice in an official publication of the Imperial Department of Agriculture of the West Indies proves that it is a matter of some importance. Thus, under the head of "Fancy Work and Curios," the following paragraphs have appeared in the *Agricultural News*, published at Barbados: "The present age is one in which there is a great demand for curios, and the increasing number of winter visitors to these Colonies should enable aged people and those who are only able to follow light, sedentary occupations to establish quite a small industry in mounting and preparing the ornamental seeds of the West Indies. At Jamaica a Women's Self-Help Society, founded in 1879 by Lady Musgrave, is doing excellent work in this direction. It supplies a large assortment of ornamental articles made from seeds, fruits, and Ferns entirely prepared by its members. The society is possessed of a substantial building that has cost £900 free of

debt. A similar society has lately been founded at Trinidad by Lady Moloney, wife of the Governor. On one occasion, as the result of one day's sale of these articles by the Self-Help Society, a sum of close upon £80 was taken, and at another time a two days' sale realised a similar amount, making a total of nearly £160 in three days—a proof that 'There is evidently something to be done with unconsidered trifles if only deft hands and skilful brains are trained to present them in an attractive and artistic manner.'

The preceding remarks apply only to West Indian products, but as a large number of the plants referred to are found also in other tropical countries, we intend to say a few words specially about ornamental seeds. Before doing so, however, we may perhaps express some surprise that many of them as well as barks and various other tissues are not more widely known in this country than they actually are, seeing that there is no lack of materials available. All that is needed are clever fingers to manipulate them into articles of a saleable nature and a determination to bring them to notice, which can be realised in many ways, such as the working up of the articles themselves either as a pastime or as a business occupation, or the promotion of their sale, in which ladies have so much influence, a fact which has been so fully proved by our reference to the work of the Jamaica Women's Self-Help Society, and in our own country by the action of a combination of ladies for the purpose of promoting Irish and Scotch industries, and, further, in the revival of the lace manufacture in the English countries where it had well-nigh died out.

As an aid towards the fulfilment of the object we advocate we will give a few examples of the material available. Many tropical seeds and fruits are most attractive both in colour and form, and offer a very wide scope for adaptation, such as the pretty little scarlet and black Crab's-eyes as they are called. These are the seeds of a common tropical climbing plant—*Abrus precatorius*—belonging to the order Leguminosæ. The seeds and pods are most plentifully produced, so that there is no chance of the supply falling off should a great demand arise for them. In every country where the plant grows these highly ornamental seeds are used for necklaces, ear ornaments, and rosaries, as well as in the decoration of caskets, boxes, and such like articles. A bunch of the dried, twisted pods sufficiently opened to show the brilliant red seeds inside (Fig. 1) makes an excellent addition to a vase of dried flowers, and are used by English people in India as a substitute for Holly at Christmas.

Another leguminous seed similar in appearance to the Crab's-eyes, namely, a bright scarlet with a big black blotch, but very much larger in size, is furnished by *Ormosia dasycarpa*, sometimes known in the West Indies as the Jumbi (Fig. 2). These seeds form splendid necklaces, especially if strung on two strings and the black and red blotches reversed alternately; for mounting in brooches they are also very suitable. Another West Indian tree, having hard red seeds without the black spot, which are specially adapted as a substitute for coral, is *Erythrina Corallo dendron*. It is known in the islands as the Coral tree, and belongs to the same natural order as those already mentioned. For brightness and brilliancy of its scarlet the seed of the Andaman Redwood tree (*Adenanthera pavonina*, Fig. 3) excels all. The seed is somewhat

lens-shaped, and about a quarter of an inch in diameter, extremely hard on the surface, and very uniform in size and weight. These seeds are commonly used in India, not only for necklaces, bracelets, and other articles of personal adornment, but also as weights in consequence of their uniformity. Set in a mount of gold, either for pins, rings, or brooches, they make an excellent substitute for coral, for it is remarkable that none of these bright colours of seeds fade by exposure to light or from the effects of time. Besides this there is the recommendation that the seeds are Nature's own production, and not a fictitious imitation. A few years ago these seeds were used by a well-known London jeweller, after being mounted in gold as above described. It cannot be denied that for necklaces and such like purposes, there is some little difficulty in boring the necessary holes

MISCELLANEOUS.

CARNATIONS AND PINKS FOR VASES.

NOTHING can be more beautiful or more effective for vases than these popular and very charming flowers, and just at present they are in such great abundance and such infinite variety, that an endless succession of pleasing arrangements can be secured with very little trouble, for these useful blossoms are very easy to arrange. In cutting Carnations for decoration care should be taken to select blooms on long stems, to see that the said blooms are quite fresh, and to exercise discrimination in the matter of the colours chosen. No foliage looks so well with them as their own, and the custom of using this need not become extravagant, as with proper attention to the ends of the stalks the slips may be made to last three weeks or even more. The numerous varieties of the fancy grasses are peculiarly well suited to mix with Carnations, especially *Lagurus ovatus*, *Briza minima*, *Agrostis pulchella*, *A. nebulosa* and *Eragrostis elegans*. The use of flower buds is also to be recommended, and these, as well as the shoots, can be taken from single seedlings, thus saving the choicer varieties. I have before me as I write a dull green Fern pot of Devon pottery in quaint design filled with blooms of a seedling very similar in colour and habit to Mrs. Reynolds-Hole, loosely arranged with its own foliage and cloudy plumes of *Agrostis nebulosa*. The effect is very charming, all the details, both of pot and flowers, being quite in harmony.

In the successful arrangement of flowers for house decoration a great deal depends on the vase or pot. Broadly speaking, coloured glass vases are an abomination. Venetian and Bohemian glasses are, of course, exceptions, also certain examples in delicate shades of yellow and green, which are now being offered at exorbitant prices. But the cheap and nasty articles in vivid reds, blues, and unhealthy-looking mixtures are quite fatal to the beauty of any flowers placed therein. In my opinion nothing can beat good clear glass or artistic pottery in subdued tints. In a glass vase I have just arranged a number of scarlet Carnations, judiciously mixed with white ones, this little group being intended for a dark corner, which it now brightens successfully. For cutting the singles are by no means to be despised, and a pretty combination consists of a pink and white single mixed with Germania. Another very favourite mixture is Uriah Pike, or a similar maroon-coloured flower, with Mrs. Leopold de Rothschild or a similar Pink. As a rule I prefer the fancy varieties to be arranged by themselves; the selfs are by far the best for mixed arrangements, and then the most elegant effects can be obtained by using two varieties only; three or more different sorts will almost inevitably give a garish effect.

MIXED BORDERS.

From the present time onwards until the end of the summer and quite half through the autumn is the season for the majority of the larger herbaceous plants, and as the borders will be gay with the flowers of many different families it is a good plan



ORNAMENTAL SEEDS. (Drawn by Lillian G. Jackson.)

1, Crab's-eyes (*Abrus precatorius*), pod and separate seed; 2, Jumbi (*Ormosia dasycarpa*), one seed shows hilum; 3, Seed of Red Sandal Wood (*Adenanthera pavonina*), side and end views; 4, Nicker Nuts (*Cesalpinia Bonducella*); 5, *Elæocarpius Ganitrus*; 6, *Fusanus* sp.; 7, Horse-eye Bean (*Mucuna wrens*), side and end view, showing hilum; 8, 9, 10, 11, 12, and 13, Various forms of Job's Tears (*Coix Lacryma Jobi*); 14 and 15, Velvet seeds, two species of *Quina*; 16, Necklace of Velvet seeds.

through which to pass the cords. This is best done by fixing the seed firmly and using a fine drill. Attempts to soften them in water will cause failure, for not only does the coloured skin separate from the cotyledons, but the cotyledons themselves divide and the seed is hopelessly spoilt, besides which the red colour loses some of its brilliancy, and the softening process takes some days to effect. Therefore, perfectly and naturally dried seeds of all kinds should always be selected, the colours and shapes being the most natural under such conditions.—JOHN R. JACKSON, A. L. S., &c., Late Keeper of the Museums, Royal Gardens, Kew.

(To be continued.)

to note the general effect with the view of making improvements in the grouping at next planting time. No one family should have undue prominence, especially if that family is represented by only one shade of colour. A background, for instance, that mainly consists of Helianthus in variety or Solidagos is apt to be a trifle monotonous. There are very few herbaceous borders on a large scale that are satisfactorily planted at the first attempt; fortunately, most of the inmates bear shifting well, and can also be readily increased by division, and any alterations required can be made after the first flowering season. The great point is to get such work finished, if possible, this side of Christmas, to divide and replant carefully, and to help the plants a little the first season if the weather is against them. Spaces may at planting time be left for those things which will be increased by cuttings and which are not likely to be ready until next spring. For a season or two after planting, if the materials to hand were somewhat scanty, other things have to be introduced to fill the border, but with good cultivation and a little judicious autumnal division the perennials will soon monopolise the space. The only foreigner at the back of our borders this year is Nicotiana glauca, and an occasional clump of the same is decidedly effective, the magnificent leaves forming an excellent contrast to the rather small foliage of many perennials, the Starworts and Pyrethrum uliginosum, for example. For large clumps, when staking is really necessary, there is nothing better than half-inch or three-quarter inch round iron in 5-feet, 6-feet, and 7-feet lengths sharpened at the one end. They are rather expensive at the outset, but, bearing in mind their durability and also their strength and neatness, I think the little extra money given is laid out to advantage. In the wild garden just at present the tall Phloxes, Chrysanthemum maximum, and some of the laevis and the Novi-Belgii Starworts are in great beauty. Clumps of Hydrangea paniculata associated with Fuchsia gracilis also make a very effective group.

E.

CORRESPONDENCE.

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

CARPENTERIA CALIFORNICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I wish you would tell me something about this beautiful shrub which I saw in a southern garden recently. There was no one I could ask, but I was told it was the *Carpenteria*. H.

[This, botanically related to the Mock Oranges, we fear is not a perfectly hardy plant except in such favoured spots as the Isle of Wight, the Devon and Cornish coasts, and the warm and southern parts of Ireland. It is one of our more uncommon shrubs that may be successfully grown and flowered in pots, and where kept in a greenhouse temperature it blooms as a matter of course earlier than in the open ground. In the spring, when the majority of outdoor shrubs are only just pushing forth their leaves, a specimen of this *Carpenteria* studded with its large white blossoms is not only a very beautiful object, but quite distinct from its other associates in the greenhouse. It may be kept in health for years in a pot, provided it is after flowering hardened and plunged outside during the summer months and well on into the autumn. If kept under glass altogether the foliage is very liable to be attacked by red spider, which soon causes it to wear a sickly look. The heavy dews so prevalent in early autumn seem to benefit this *Carpenteria* greatly when it is grown in pots, and for this reason it should not be taken under cover before it is absolutely necessary. Treated as a shrub in the open ground or trained to a wall, it is, of course, seen to greater advantage than when confined in pots; still, where not quite hardy there is no reason why it should not be grown and flowered under glass in the manner described. Now that this has become well distributed about the country, it would be useful to hear from

growers of it in different parts as to its behaviour, more especially in reference to its hardiness. September is the best month for propagating this *Carpenteria*, for cuttings of the young growing shoots, if put into pots of sandy soil, will with ordinary care and attention root readily enough. The frame must of course be kept close and shaded till the cuttings strike. An ordinary cold frame is very useful if set apart for the propagation of hardy shrubs during the summer months, for a great many of our most beautiful kinds may be struck from cuttings of the young growing shoots, taken just as they have lost their most succulent character and become moderately firm.—Ed.]

GROWING THE GLOBE ARTICHOKE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Will you please give a few practical hints on the culture of Globe Artichokes? Mine planted two years ago seem to grow too luxuriantly; they have huge leaves and are very tall, but the heads are very small and poor eating. Would you advise their being moved to poorer soil?

P. [Evidently the Artichokes in question are from a poor stock raised from seed and unselected. Though most seedsmen sell seeds from selected types of the Green Globe and Purple Globe forms, a very large percentage of the produce is worthless, so that a rigid selection must be made of the best types when the heads form, and all the rest destroyed. This may mean destroying two-thirds or even more of the seedlings. A better way of getting stock is to buy selected crowns of the purple or green forms, as desired, from a reliable source, and then to take good care not to lose the stock again. By no means should the plants be removed to poorer soil, rich soil and free growth being absolutely necessary for the production of good succulent heads, and if strong-growing plants, such as "P." appears to possess, do not produce good heads, no system of cultivation will make them any better than they are. The cultural details are few, but must not be neglected. Plant in April or early in May, in groups of three, the strongest crowns which can be procured, the groups to stand at least 4 feet apart. The position should be an open one, and the ground should have been trenched and well manured during the previous winter, and if the soil is inclined to be wet or heavy, some light material, such as the ashes from burnt garden rubbish, should be added; or, if this is not available in quantity, leaf-mould and road grit form a good substitute—indeed, any one of the various things which are recommended to assist in making a heavy soil more porous will greatly benefit the Artichokes, and help to prevent their loss during the winter. While the plants are bearing their crop they enjoy liberal floodings of liquid manure, and under this treatment they flourish, and keep on producing successional heads for at least five months of the year. Make it a rule to plant one or two rows every year, as the best crops are given in the second and third seasons, while those newly planted give a late supply. It is a mistake to allow the old stools to remain in the same spot for many years, as they get weak and overcrowded with shoots. As winter approaches the crowns should be surrounded with dry Bracken, and as this becomes sodden it should be removed and replaced with fresh material. Some recommend coal ashes and others straw as a protection, but Bracken is best. Wet winters are worse than cold ones for the plants, but they suffer most of all when frosts are alternated frequently by wet thaws, and to avoid total losses of valuable stock in such seasons in November some of the strongest crowns should be separated from the stools with a little root attached to each, potted up into 7-inch pots, and wintered in a cold but dry frame, planting them out in May. Old stools may be lifted and divided, the woody portion of the root-stalks should be removed, but each divided piece should have some fibrous roots attached. The Bracken or other protective material should be removed from the established clumps in spring as soon as the weather becomes genial, and at the same time a good dressing of decayed manure should be lightly pointed in with a garden fork.

Should the crowns be much crowded, some of the weaker growths should be removed when they become sufficiently advanced, as this will strengthen those left and tend to the production of first-class heads. For light soils seaweed forms a good manure, and, failing this, light dressings of fish manure or of agricultural salt should be given during the growing season.—Ed.]

SOCIETIES.

DUNFERMLINE ROSE SHOW.

The first of the flower shows arranged under the Carnegie Dunfermline Trust took place in Pittencrieff Park, Dunfermline, on the 21st ult. As £170 was given in prizes, in well-arranged classes, the competition was keen and the quality of the exhibits proportionally high. At this show, which is to be followed by others this season, Roses were the chief flowers, and seldom have Scottish lovers of the queen of flowers had a finer lot of flowers placed before them. Hardy flowers, Pansies, Violas, and Sweet Peas, were also very fine, and the classes for pot plants, and for bouquets, baskets, &c., were good, particularly the decorative work. The show was opened by Dr. Ross, chairman of the Trust. Subjoined are some particulars of the winners in the leading classes: Roses, open class, Carnegie Championship prize for seventy-two single blooms: First, Messrs. Alex. Dickson and Sons, Limited, Newtownards; second, Messrs. Hugh Dickson, Belfast; third, Messrs. D. and W. Croll, Dundee. Thirty-six Roses: First, Messrs. A. Dickson and Sons, Limited; second, Mr. Hugh Dickson; third, Messrs. D. and W. Croll. Messrs. Croll were first for twenty-four Roses, and also for twenty-four Teas or Noisettes; Messrs. A. Dickson and Sons being second in each of these classes. In the class for twelve vases of Roses, five blooms in each vase, Messrs. Dickson and Co., Edinburgh, were first. The displays of Roses, in space 10 feet by 5 feet, were excellently arranged, the first prize being won by Mr. Hugh Dickson, Belfast. In the classes for Roses confined to gardeners and amateurs, the leading winners were Mr. W. M. Melville, Newton Mearns, Rev. J. H. Pemberton, and Mr. A. Dalgarro. The amateur classes, though few, were good, the winners of first prizes being Mr. J. Russell, Newton Mearns, and Mr. W. M. Melville. Mr. A. Frater was first for forty-eight fancy Pansies and Mr. J. Paul for twenty-four, Mr. Smellie winning with show Pansies and Mr. A. Brown with Violas. The display of herbaceous flowers, 10 feet by 5 feet, brought out two competitors, the first prize falling to Messrs. J. Cocker and Sons, who had also the first for twelve bunches.

HANDSWORTH HORTICULTURAL SOCIETY.

The twentieth annual exhibition of this flourishing society took place on the 22nd and 23rd ult., as usual, in Victoria Park, several large tents being required to accommodate the exhibits. There was a large attendance. Viscount Morpeth, M.P., the president of the society, was in the chair at a large luncheon party, to which the judges were invited, Lady Morpeth being also present, who subsequently was the principal figure at an opening ceremonial. The Handsworth Flower Show promises to grow into one of considerable proportions.

The schedule of prizes contained a large number of classes, but it is possible to deal with a few of the leading ones only. In that for a group of plants filling a space of 300 feet, Messrs. J. Cypher and Son, Cheltenham, were placed first with one of those square arrangements in which brilliant foliated plants are seen to great advantage. Mr. J. P. Macdonald, gardener to G. H. Kenrick, Esq., Birmingham, was second, and Mr. W. Vause, Leamington, third, both excellent displays. Messrs. Cypher and Son also secured first prize for twelve stove and greenhouse plants, not less than six in bloom; they had a background of four magnificent Palms, two brilliant Crotons, *Statice intermedia*, and *Kalosanthes coccinea*, both very fine; *Chironia exifera*, *Ixora Duffi*, &c., Mr. Vause was second, and Mr. Brazier, gardener to J. Martineau, Esq., third. Other open classes for plants were for a group of Tuberosus Begonias, also for Fuchsias, zonal Pelargoniums, Coleus, Caladiums, &c. In another division there were classes for plants shown by gardeners and amateurs, but time and the crowded state of the tents prevented particulars being taken. Cottagers also exhibited plants.

The open class for cut flowers comprised Roses. The best twenty-four varieties came from Mr. George Prince, Longworth, who had remarkably good blooms, the Hybrid Perpetuals being brilliant in colour; Messrs. Perkins and Son, Coventry, were second, and Mr. F. Dennison third. With twelve blooms of Tea and Noisette Roses Mr. G. Prince was again first with some fine Roses, Messrs. Perkins and Son being again second. Mr. Prince also won the first prize for twelve bunches of garden Roses, having bold and striking bunches of suitable varieties. Mr. J. Mattock, Oxford, was second. These two fine collections formed one of the leading features of the show. Yellow ground and white ground and self Carnations were shown in a few classes, and Mr. A. R. Brown's special prizes for bizarre and flake, and also for white ground Picotees brought some pretty blooms.

Sweet Peas were in strong force. Mr. R. Sydenham offered special prizes for twelve varieties, a large number being staged. Mr. W. Marple was first and Mr. E. Deakin second. Special prizes for six varieties were offered by Mr. S. Dennett, Mr. E. H. Cheshire being first and Mr. H. J. Canning second.

Collections of fruit of not less than ten and not more than fifteen varieties brought a fine contribution from Mr. J. H. Goodacre, Elvaston Castle, Derby, who had finely finished Madresfield Court, Black Hamburgh, Gros Maroc, and Muscat of Alexandria Grapes, two dishes each of Peaches and

Nectarines, Melons, Plums, Strawberries, Figs, &c. Mr. T. Bannerman, The Gardens, Blithfield, Rugeley, came second; and Mr. J. Read, The Gardens, Bretby, Chesterfield, third. There was also a class for six bunches of Grapes, in which Mr. Goodacre came in first with three excellent bunches of Madresfield Court and three of Muscat of Alexandria; Mr. T. Bannerman taking the second prize. Fruit was also shown by gentlemen's gardeners and amateurs, in several classes, and hardy fruits by cottagers.

Some table decoration classes were also open to all. Chief among them was one for a dinner-table arranged on a space of 8 feet by 4 feet. The Leamington Nursery Company was first, having designs in Orchids, Mr. C. Thomas coming second with an artistic arrangement in Sweet Peas. Bouquets, epergnes, and baskets were also shown.

Vegetables were numerous exhibited and of generally good character, the cottagers making a brave display.

There were many honorary exhibits mainly by the trade, a silver cup, a gold medal, and a money prize being offered. The judges were set a somewhat onerous task. Eventually the silver cup was awarded to Mr. G. Prince for a fine and effective display of Roses of high quality. Messrs. Baker, Wolverhampton, were awarded the gold medal also for a display of Roses, the money prize going to Messrs. Hewitt and Co., Solihull, for a bank of hardy flowers and Carnations in vases. The following were awarded the silver medals of the society: Mr. G. Hancox for a group of fine-foliaged plants; the Vineries, Limited, Leamington, for a collection of herbaceous Phloxes; Messrs. Caw and Co., Hockley, for cut flowers; Messrs. B. R. Davis and Son, Yeovil, for double Begonias of fine quality; Messrs. Jarman and Co., Chard, for Roses, Begonias, Sweet Peas, &c.; to Messrs. Tuplin and Co., Newton Abbot, for Carnations, and to Messrs. Simpson and Son, Birmingham, for Sweet Peas.

HIGHGATE HORTICULTURAL SHOW.

THE forty-fifth annual exhibition of this North London Horticultural Society took place in the grounds of Hillside, Fitzroy Park, on Thursday, the 14th ult. On this occasion there were no less than twelve groups, and in themselves they were a fine feature. Coleus were good, the plants being large, and in some cases well coloured. Exotic Ferns were well displayed, reminding us of the earlier days of the society. Sweet Peas and hardy flowers and fruits were seen in good condition, and the two former subjects in diverse colours. Table decorations were interesting, but the judgment in this class difficult to understand. Amateurs and cottagers showed some remarkably good produce, flowers, fruits, and vegetables each coming in for a large share of attention.

There were two entries in the class for a group of miscellaneous flowering plants. That which won first prize for Mr. H. Hine, gardener to Mr. W. Scrimgeour, Parkfield, Highgate, was a very pretty and tastefully arranged group. For a group of flowering or foliage plants, or both combined, to cover a space not exceeding 50 square feet, Mr. T. L. Turk was placed in the premier position with a really grand group. A striking display was made in the class for a group of plants to consist of exotic Ferns, Caladiums, and Coleus, set up for effect in a space not exceeding 50 feet. In this instance Mr. Turk again was first. Mr. E. H. Chitty, gardener to Mr. S. Hardy, Cholmeley Lodge, Highgate, was an excellent second, his arrangement of the group being distinctly better than that of the first prize exhibit. Another mixed group, of the same dimensions as the others, was a capital display. In this instance Mr. Chitty was placed first. The class for six Coleus, distinct, was a feature in the show. Mr. Hine was a good first with large, well-coloured specimens, and a great improvement on those of recent years. Tuberos-rooted Begonias appeared to have suffered from the effects of the extremely hot weather of late. For twelve plants (six double and six single) Mr. Adams was placed first with plants not so good as usual, and Mr. Turk was second with a poorer set.

The decorative classes were interesting, that for a dinner table decoration being conspicuous. Mr. Turk was awarded first prize for a mixture of pale lavender, salmon, and maroon Sweet Peas, with Gypsophila elegans and suitable foliage and a layer of Smilax over the table cloth, Miss Bells Saunders, Victoria Cottages, Archway Road, N., being second, and Mr. D. B. Crane third. For twenty-four bunches of hardy flowers Mr. G. W. Earp, gardener to Mr. J. S. Sellon, The Grange, Highgate, was first with a beautiful collection of the best hardy plants then in flower. Mr. D. B. Crane was second, also with an interesting series. For twelve bunches of Sweet Peas Mr. Earp was awarded first prize; second, Mr. D. B. Crane, with larger flowers. In the amateurs' section Mr. Crane won the first prize for a collection of hardy flowers (number of varieties not restricted); second, Mr. W. Bignell, Highgate, with a good lot. For a collection of hardy fruits Mr. Earp was deservedly first with a very fine exhibit, Mr. D. B. Crane being placed second. For the same subject in the amateurs' section Mr. Crane was awarded first prize. The cottagers showed well, and it was hard to believe that the produce staged on this occasion was grown within five miles of Charing Cross.

The president (Mr. E. H. Smithett), who on this occasion gave the society the use of his grounds, has for years been indefatigable in his efforts to maintain an interest in horticultural matters.

THE HORTICULTURAL CLUB.

SUMMER MEETING.

THE annual excursion of this club took place on Wednesday, the 27th ult., and, thanks to the genial hospitality accorded to the members and their friends by Mr. and Mrs. Harry J. Veitch and the general arrangements made by that gentleman, nearly sixty spent a most delightful and instructive day. There were, fortunately, only occasional showers, and these were more than counterbalanced by the prevailing freshness of the landscape after the previous heavy rainfall. The party—among which were Messrs. J. Sweet, G. Monro, A. Watkins, C. T. Drury, H. H. Langston, J. Green, G. Paul,

H. E. Molyneux, G. Bassett, J. Asbee, J. Dowie, E. Mawley, W. R. Alderson, H. B. May, G. B. Schoultz, O. Thomas, G. J. Ingram, T. Bevan, J. Walker, C. E. Osman, and E. T. Cook (hon. sec.) with their wives and lady relatives—went down by the 10.55 train from Paddington in two saloon carriages, and, being met at Slough by their host, had a drive by brake to Langley Park, the residence of Sir R. Harvey, Bart., where, by permission, they had an opportunity of inspecting a number of remarkably fine Japanese bronzes, and the renowned Cedar of Lebanon, which forms the chief attraction. This Cedar utterly transcends all ordinary ideas, owing to its immense size and the peculiar decumbent habit of its branches, the lowest of which spread horizontally in all directions, to a great distance, completely covering, with still rapidly spreading foliage, a circle of no less than one hundred yards circumference.

Penetrating this, we reach an enormous trunk, which towers to a great height, sending out similar but smaller branches to some elevation, and finally forming a grand mass of foliage, somewhat more on normal Cedar-like lines. The main lateral branches are seen to be of huge girth in themselves, and resting upon the soil at a considerable distance from the trunk, spread out into wide sheets of vigorous verdure to form the circle aforesaid. To look at this tree one would give it at least a thousand years, judging by ordinary standards of growth, and yet it is computed to be no more than 150 years old, and certainly not 200, as the Cedar of Lebanon had not been introduced into this country so long ago. The next marvel in this garden is an extraordinary example of the Common Spruce Fir, which, though lacking the majesty of beauty of its near neighbour, is probably unique. This, too, appears to have caught the spreading habit of the Cedar, its lowest branches radiating horizontally and resting on the soil. It differs, however, in the fact that a large number of these branches have rooted, and while still attached have formed a ring or rather thicket of good sized trees, more of which appear to be in process of formation. The most curious feature is observed when this thicket is entered, as it can be here and there, when it is seen that each tree is joined to the main trunk by a slender branch an inch or so in diameter and a yard or two long, which at the rooting point suddenly swells out to a foot or more thick, which continues horizontally for a few yards, and then rises perpendicularly to form the tree proper.

The effect is very odd, and shows that so soon as the rooting of the branch was perfected the resulting young tree ceased to contribute an appreciable annual ring to the connecting link. After these, the beautiful collection of Bamboos, &c., was visited and much admired, and the party then proceeded *via* Black Park to East Burham Park, the seat of Mr. Harry Veitch, where a generous luncheon was provided, also afternoon tea, and Mr. Veitch's beautiful gardens and aviaries were duly investigated. Subsequently the party was driven to Maidenhead, through the renowned Burham Beeches and the celebrated grounds of Dropmore, and an appropriate end to a delightful day was enjoyed by dinner at Skindell's Hotel prior to the home journey thence to Paddington. That Mr. and Mrs. Veitch's abundant kindness found due recognition in a hearty vote of thanks need hardly be stated.

EAST ANGLIAN HORTICULTURAL CLUB.

THE summer excursion of this club took place on Thursday, the 28th ult. About eighty members and friends journeyed by brakes to Framingham Manor House, the seat of J. H. Christie, Esq. They were met at the drive gate by the head gardener, Mr. Kett, who acted the part of guide. Passing through the well-kept pleasure grounds and shrubberies, one could but admire the choice and rare plants to be seen on every side. The aquatic garden, with its borders of Irises, and the large bold plants of the Nymphaeas of many colours, which were just in their fullest beauty, were greatly admired. The Calla, too, is established here. Mr. Kett, amongst other things, grows the Streptocarpus well. Leaving this place the party journeyed to Dunston Hall, the seat of the Mayor of Norwich (G. F. Buxton, Esq.). Mr. Hewer, the head gardener, who had been with the party to Framingham, conducted here, and made the way through the numerous fruit houses. The well-kept kitchen and fruit gardens were next visited. The recent drought had severely hampered the growth of things here, and brought on premature finishing of some of the crops, especially of Peas.

In going through the flower garden one naturally looked well at the border which Mrs. Buxton wrote of in THE GARDEN some time ago. Carnations were strongly represented, and carrying practically sheaves of flowers. The lawns and flower gardens were well kept, and the plant houses bright with the choicer subjects of the season, and many cultural points were observed by the observant of the party. At the inn at Mulbarton Mr. Edey had prepared a capital repast, over which Mr. T. B. Field of Ashwellthorpe presided, supported by Messrs. J. W. Church, W. Dennington, E. Newell, H. Perry, F. Smith, N. Leeder, F. Myhill, W. Myhill, and other professional and amateur gardeners. Mr. Field, in a short speech, said how pleased he was that the outing had been favoured with such grand weather, and an opportunity had been given of visiting these gardens. He had the greatest pleasure in moving a hearty vote of thanks to the gentlemen who had so kindly allowed the club to visit their grounds. A hearty vote of thanks was accorded to the outing committee, and especially to Mr. W. L. Wallis, the secretary, for the arrangements made.

BASINGSTOKE FLOWER SHOW.

THE twenty-eighth annual exhibition was held in Golding's Park on Bank Holiday. Plants were numerous and good. Mr. Wasley, gardener to J. B. Taylor, Esq., Sherfield Manor, Basingstoke, won for nine specimens; Mr. Best, gardener to F. D. Leyland, Esq., The Vyne, Basingstoke, won for the best arranged group of miscellaneous plants with suitable material none too well displayed. Tuberos Begonias were very fine. Mr. W. Green, gardener to S. E. Bates, Esq.,

Marydown, had the best freely-flowered double varieties Coleus trained in pyramid form were well coloured; the best came from Mr. Green. Exotic Ferns in six varieties were well shown by Mr. Leith, gardener to H. Welch Thornton, Esq., Beaurepaire Park, Basingstoke. Lilioms, especially the lancifolium type, were well flowered. Mr. Green secured first prize for four. Mr. Wasley contributed twelve capital table plants, and won the premier place in the class set apart for them.

Cut flowers were numerous and good, with the exception of Roses; these felt the effects of the recent hot dry weather, as well as the more recent showers. Carnations were exceedingly fine. Mr. Neville, gardener to F. W. Flight, Esq., Cornstiles, Twyford, Winchester, won for twelve with remarkable flowers. Herbaceous flowers were good. Mr. Hunt won for twelve distinct, and for a collection in a space 6 feet run of tabling.

Fruit was remarkable in point of numbers and quality. In the class for six dishes Mr. Wasley staged exceedingly fine examples of Madresfield Court and Muscat of Alexandria Grapes, Barrington Peaches, Superlative Melon, and Rivers' Early Nectarine. Mr. Hunt, gardener to J. Moss, Esq., Fern Bank, Blackwater, won with Black Hamburg in two bunches. The last named also won for two bunches, any white variety not Muscat, with Foster's Seedling, good in every respect.

Peaches were quite good. For one dish of fine fruit Mr. Bowerman, gardener to Lord Bolton, Hackwood Park, was first with Alexandra Noblesse, a like honour falling to Mr. Hunt for Nectarines with Rivers' Early.

Vegetables are always good here; Mr. Bowerman with marvellous produce won three first prizes, being followed closely by Mr. Kneller, gardener to Sir W. Wyndham Portal, Malshanger Park.

Messrs. B. Ladhams and Co., Shirley, Southampton, had a non-competitive collection of hardy cut flowers, which added to the interest of the show, and were much admired. Mr. Neville staged two dozen blooms of Carotions in beautiful condition. For these and the preceding exhibit cultural certificates were awarded.

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.—Sojourner.—1, Persian Yellow; 2, Charles Lefebvre; 3, Noella Nabouand; 4, Jean Liabaud; 5, Cheshunt Hybrid; 6, Mme. Clemence Joigneaux; 7, Claude Jaquet.

Tomatoes for winter (W. H. D.).—A few plants raised now will be valuable for a winter supply of fruit. The plants are raised with so little trouble that it is not necessary to say much on the subject. It is useless to sow seeds too late, as, unless the fruits are set before November they will probably not set at all. For early spring fruiting late plants are valuable, as these keep quiet through the winter will come into bloom in February and March. For midwinter supplies plants should have been raised before now and be ready to pot on. Avoid heat, as the harder they are grown the better. Night exposure when there is no frost is beneficial, as the night dews keep the plants clear of insect pests and induce a short, compact growth. As to varieties, Frogmore Selected is an excellent one for winter fruiting. As soon as the seeds are through pot on the seedlings into small pots and keep them growing well; pot when they are well rooted into 3-inch pots, and finally into the fruiting pots. Fertilise the first flowers that open, so as to make sure of having the fruits formed before the dull dark days of winter. From plants which fruit in December it is possible to obtain a second crop in April by getting new growth and feeding the plants well. To do this it is necessary to keep the plants rather warmer after the fruits are gathered. Still, this method is hardly worth practising, as by growing the plants specially for spring fruiting better results are obtained.

The Oleander (ESSEX).—You ought to be able to obtain this shrub from any good nurseryman. There is not a large demand for Oleanders, but a small stock is usually kept. The Oleander is a beautiful shrub that will flower year after year with little attention. Grown in pots or tubs it may be wintered in the greenhouse or conservatory, and during the summer can be placed out of doors in a sunny spot. Such conditions are favourable to the production of blossoms, which expand about July, the plant then being particularly attractive. When in flower they may be allowed to remain out of doors, or removed to the conservatory if they are needed at that period. It is a loose, open-growing shrub naturally, and any attempt to alter its character in this respect will only end in failure. If a specimen is cut back at least one year's crop of blossom will be sacrificed. The cultural requirements of the Oleander are in no way exacting, for cuttings strike readily either in soil, sand, or water if they are kept close for a little while, and they grow away freely in any ordinary potting compost. In com-

mencing with young plants the tendency to run up tall and bare should be borne in mind, and to obviate this they must be freely stopped during their earlier stages, as in this way the foundation of an effective specimen is laid.

Marguerite Carnations (NEWTON ABBOT).—In pots these are very useful for late autumn and early winter blooms after Carnations generally are over and so many things in the outdoor garden are past their best. This race is equally serviceable during the spring months, and it is possible to have a good supply of Carnations up to the time they begin to flower in the open ground. From the beginning of March onward they are good in form and colour, and have that delicious fragrance which is almost entirely wanting during the dull winter months. The culture of Marguerite Carnations is simple; it consists in putting them out in early spring in well-worked, fairly enriched ground, and lifting and potting them late in summer or early autumn. Many sow the seed in spring, but we prefer to sow in July in a cold frame. The seed germinates freely then, and the young plants can be kept in a cool house through the winter, coming into the open air in spring. No hardening off is necessary, as is indispensable in the case of plants raised in heat in February, and if planting out for the summer months is to be practised the young plants can be set out a month or six weeks earlier. Healthy young seedlings put out in April will grow into specimens large enough for 7-inch pots, and they will be crowded with buds by the end of the summer. Early planting admits of early lifting, the plants being large enough to pot up by the middle of August. Flower-stems will appear in July, but these must be pinched off, as flowers are not required before October, when outdoor things are mostly over.

Treatment of zonal Pelargoniums (J.).—The plants should now be potted up, using a compost of loam, a little dried cow manure, and plenty of leaf-mould and sand. After potting place them outside in the sun, and do not give much water until they begin to root freely; then a liberal allowance is necessary. So treated the plants make a stouter growth than in frames, owing partly to the fact that more room can be allowed. They are almost sure to push flower-buds at once, but these should be pinched out. The plants may be left in the open until the middle or end of August, according to the weather, when protection must be given. At all times under glass a good circulation of warm air must be kept up around the plants, placing these as close to the roof as possible and giving no shading. If more convenient the plants may be brought on in batches to keep up a succession of bloom, though the same plants will continue to flower for several months. In the meantime, it is true, they are apt to grow a little unshapely, but if duly fed at the roots the quality of the flowers is as good at the end of the season as at the beginning. After flowering the plants may be placed in ainery or greenhouse and kept rather dry until June, when they may be cut back, using the prunings for propagation if desired. Double-flowered varieties require rather more warmth to induce them to open freely than single ones, but in a house kept up to 60° Fahr. at night and fairly dry either will be satisfactory. The varieties are too numerous to give anything like a good selection, but as a general rule the English-raised varieties are far superior to the Continental ones.

Freesias (H. J. D.).—Our correspondent asks as to the treatment and culture of these plants, so as, if possible, to have them in flower all the year round. We are afraid we cannot hold out much hope of success in this direction, for the most successful market growers are not able to have them in bloom for more than six months out of the twelve. Freesias have in their native habitat a fixed time for flowering, and in England that is merely accelerated or extended according to the means and method adopted. Potting should commence in July or early August; then continue to put in successive batches of bulbs until the end of October, either in pots of 5 inches diameter or in boxes 15 inches by 10 inches. Such boxes will accommodate four dozen large tubers, which, when planted, should be covered with not more than half an inch of soil, consisting of one half loam, with an admixture of peat, leaf-soil, and sand. The size of pots named will take half a dozen bulbs. It is advisable to put in together all those intended for early flowering, thus encouraging them to form plenty of roots early before placing in the greenhouse. Anything approaching dryness at the root generally ends in failure. A fatal error is often the outcome of stagnant root moisture, due to placing the pots in saucers that are nearly dry, for while with a free drainage the water supplies may be abundant, the other extreme will quickly bring about failure. By early potting and subsequent forcing these flowers may be had for at least six months in succession without scarcely any break. And after this the season may perhaps be somewhat further prolonged by placing the bulbs in dry sand in a frost-proof shed or cellar for planting in a sunny frame about the middle of February. Such a frame, however, will need some preparation, raising the soil a foot above the surroundings. A frame 6 feet by 6 feet will take 200 or 300 bulbs, and in this way, provided the prolonged season of rest is not injurious to the tubers, you may get some flowers.

Blue Hydrangeas (S. B.).—The blue colouring is due to the presence of iron in the soil—at least, that is our experience, and if any reader can disprove it we shall be glad to have his reasons. A well-known gardening authority tried, for the sake of experiment, various recipes for turning pink Hydrangeas blue, but the flowers changed their clear and pretty pink for a dull, washy, magenta-purple, a harsh and unpleasant colouring. One station-master in North Devon, who has a wonderful blue Hydrangea, deluges it every year with water heavily impregnated with iron, and the result is flowers of a clear and attractive shade. The following letter from an old gardener may be interesting to our correspondent: "My father was head gardener to a nobleman for forty-five years. In 1836 I served as a lad in the garden under him, and to produce the blue Hydrangeas we used to collect the shales that fall from the hot iron at the blacksmith's, and mix them with the soil for potting or planting in at the rate of one part of iron to eight or ten of soil, with a little peat and sand added. We had very fair

success, but about forty years ago I found that watering with alum water, at the rate of 1oz. to a gallon of water, was more satisfactory. Secure good plants from old stools or previous year's cuttings, and when the flower trusses begin to show strongly prepare the alum water by crushing the alum and dissolving it in hot water, and when cold it is fit for use. It must be carefully given at intervals of eight or ten days, or about six times before the petals begin to open, when it must cease. It must not be given when the plants are very dry. In this way I have had flowers of a beautiful dark blue colour. It is well to label the Hydrangeas, as if you keep them in the same soil they give blue flowers for years. If the plants are re-potted or fresh cuttings struck the flowers change to the normal pink, and the process must be repeated."

Plum trees on walls (H. JOHNSON).—If the trees have very little fruit on them, as you say, they must be carefully treated, otherwise they will make rank growth, which, if continued late in the season, will lead to the trees being unfruitful another season in consequence of the wood failing to ripen. Stimulants should therefore be withheld, and no water given at the roots unless absolutely necessary. The trees themselves must, however, be kept clean, and after stopping the spur wood and tying in that required for furnishing, give them a thorough washing, and repeat the operation as often as time will permit. Trees which are bearing must be well fed to enable them to carry as heavy a crop as possible, but if the fruits are too close together a little thinning will be beneficial. Look well after young cordon trees and stop all side growths. This is an excellent way of growing the choice dessert varieties, and it is also a quick method of covering walls and any odd corner on wall buttresses. Nearly all varieties succeed grown in this way, the only exception, so far as we know, being Victoria, which gives but poor returns.

An Asparagus destroyer (S. T.).—This is one of the most beautiful of all beetles. It has been found very useful to dust the plants with finely-powdered lime, or to spray them with paraffin emulsion or Paris green. Of course, the two latter cannot be applied until the cutting is finished, as they would render the shoots poisonous. To make the paraffin emulsion, dissolve one quart of soft soap in two quarts of boiling water; while the liquid is still boiling hot, add eight pints of paraffin oil, and churn all together for ten minutes with a syringe. When the oil is thoroughly incorporated with the soap and water, which it should then be, add eight gallons or nine gallons of water, stir all well together, and the solution is ready for use. Paris green should be obtained, if possible, in a paste; use half a pound to every 100 gallons of water. Do not forget to add half a pound of fresh lime to the mixture before using it. Paris green is very heavy, so that the mixture must be kept well stirred, or some of it will be used too strong and some not strong enough. These mixtures are best applied with one of the knapsack sprayers. To cut down and burn all the plants would be the best way of destroying the insect, but it would, of course, weaken the plants. Some of the shoots that are very badly attacked should be removed and destroyed, taking care that the insects do not drop off while the operation is being carried out. Some of the insects might be beaten off the "grass" with a stick and trampled on. There are probably two, or perhaps three, generations of this insect during the year, as eggs, beetles, and fully-grown grubs may be found on the plants at the same time.

Autumn Lettuce (J. K. E.).—You will find that few varieties are better than Hammersmith Hardy Green for August sowing to stand through the winter and furnish an early spring supply. Few things are more appreciated in March and April than early Lettuce, and to obtain these one must not be niggardly in sowing in early autumn. Other varieties worth sowing now are Lee's Hardy Green and Staunstead Park. Of Cos varieties Hardy Bath or Brown Sugar Loaf give good supplies for winter and spring. Intermediate, a cross between a Cabbage and a Cos, has also proved valuable. Winter Green is also good and hardy. An early Cabbage Lettuce sown in February is nearly as early as the autumn-sown Cos. It is useless to sow for spring supplies in places where slugs and snails abound, as these pests soon clear a quarter of plants. We prefer an open bed to that on a south or a narrow border, as the plants are then more hardy and less injured by cold. A well drained soil is necessary for the plants, and thin sowing also. Raised beds in an open position give the best plants for early spring planting. You may sow broadcast in beds if large quantities are needed in spring, transplanting at the end of February or early March to warm borders.

Roses for bedding (PAPER).—There are now so many delightful Roses suitable for bedding and massing that it is exceedingly difficult to pick out five varieties as being the best we could recommend. We certainly should not advise you to plant Beauté Inconstante, for although a few individual buds are of a lovely colour it is not at all constant. The effect in the mass is usually a pale flesh tint, with a few buds of the wonderful colour you admire. We append the names of a few first-rate bedding Roses, all of which are good, and to the five we should advise you to plant we have marked with an asterisk: Mme. Hoste, *Mme. Ravary, Marie van Houtte, Clara Watson, Mme. Abel Chatenay, *General Schablikine, *Hon. Edith Gifford, *Papa Gontier, Lady Roberts, Corallina, *G. Nabonnand, Peace, Morning Glow, Sulphurea, Mme. Antoine Mari, M^{me}. Chedame Guinoisseau, Mme. Lambert, Caroline Testout, and Marquise de Salisbury. We agree with you that one variety to a bed is best, and we favour this plan, even though there is only sufficient space for six plants. A dozen plants of a kind will make a very nice display. We advise you to prepare the beds well, giving the Roses fully 30 inches deep of good soil to root into. It pays best to do such beds well at the beginning. If Roses grow freely they are not nearly so liable to insect and fungoid pests as those that are starved or overfed with stimulants. Good loam, the top spit from a meadow, cannot be surpassed for Roses, and good cow and pig manure is perhaps the best that can be given, although we always add some quarter inch bones or bone-dust to the lower stratum of soil.

Calceolaria amplexicaulis (T.).—The different varieties of Calceolaria that were at one time largely employed in the flower garden are not grown to anything like the same extent that they formerly were, for they are liable to die off in the height of the season and thus leave ugly gaps.

Galvanised pegs for pegging down (S. K.).—There is no doubt that galvanised wire pegs are injurious to the growths of Roses unless the precaution be taken to paint the wire. We much prefer wooden pegs driven into the ground so that tarred twine may be attached, and by its means the growths are brought down to the desired position.

Woodlice and stove (A. HICKS).—Messrs. Ball and Co., 16, Coleman Street, E.C., have an excellent woodlice destroyer well worth a trial, as it is cleanly and readily applied. You can get it through any seedsman. The old remedy of placing empty pots with cut Potatoes and a little hay over the latter, turning out the pots into water, is good; also, where practicable, watering with weak ammonia water. In frames it is an easy matter to water round the sides without injuring the roots of the Melon.

La France with deformed buds (J. W. LAURENCE).—This Rose is rather sensitive to rain, so much so that its buds often refuse to expand at all after heavy storms. On heavy soils, too, La France often comes bad in form. We should advise you to grow the variety upon Standard Briars and prepare a bed for it of light soil should yours be heavy. It is not advisable to prune this Rose too much; in fact, many growers recommend that the variety be allowed much freedom of growth, merely thinning the heads to prevent overcrowding. You will find bone-meal a better fertiliser for La France than rank manures from the farmyard. Apply the bone-dust early in spring.

Anopteris glandulosa losing its leaves (H. D. P.).—It is really impossible to definitely state a cause for the ill-health of your Anopteris, but we are inclined to think, as you suggest, that the sand must have contained some deleterious substance, possibly salt, which may have caused the mischief. At the same time we have before now seen shrubs struck by lightning, and while, in the majority of cases, the effects are seen either in a violent rending of the branches, or a scorched appearance as if they had been subjected to fire, occasionally the plant dies off much as your Anopteris has done, judging by the leaves sent. The suddenness of the attack is in favour of the lightning theory. There is no fungus to account for the trouble.

Rose leaves destroyed (G. W.).—I cannot say whether the leaves of your Roses have been eaten by weevils or caterpillars, but I should think more probably by the latter. As to the best means of preventing the bushes from being attacked again next year, I should recommend you to remove the soil from beneath the bushes to the depth of 3 inches, and replace it with fresh as soon as all the leaves have fallen, and burn, bury deeply, or throw it somewhere where poultry can pick it over. By these means any chrysalids which may be in it will be killed. The fungus attacking the leaves is the Rose rust (*Phragmidium subcorticatum*), a very common pest in many places. Collect and burn all the fallen leaves and spray the bushes with diluted Bordeaux mixture. Next spring, before the buds have begun to open, thoroughly wet the whole plants with 2oz. of sulphate of copper dissolved in three gallons of water. The little red grubs you found are those of a small two-winged fly; they feed on the spores of the fungus, and are quite harmless.—G. S. S.

Grapes unsatisfactory (E. D. D.).—The Grapes enclosed are a mass of mildew, and we do not see how you can now improve them. Our advice would be to cut off all the bunches and then give the vines a thorough cleansing, using a strong solution of sulphur, and after applying the sulphur shade the vines for a short time. Earlier in the season you could have saved the crop had you applied the remedies you name before, namely, as soon as the mildew appeared; but we fear you allowed the pest to spread. As soon as mildew appeared the house should have been kept drier, ventilation given most carefully, as the disease is aggravated by cold currents of air. Dry powdered sulphur should be dusted over the affected parts as soon as seen, and this failing then use a wash or other aids. The old remedy of well heating the hot water pipes and covering late in the day with a thick sulphur solution is good, and arrests the disease. When your vines are at rest thoroughly clean, and give all parts a good coating of sulphur, also cleanse all parts of house, paint if possible, and when your vines begin to grow give very careful ventilation and watch the supplies of moisture. Look out sharply for mildew and nip it in the bud. Messrs. Bentley, Chemical Works, Holl, have an excellent mildew specific, which we can advise for washing both vines and house in the winter.

TRADE NOTE.

BARB'S DAFFODILS.

IN the bulb catalogue of Messrs. Barr and Son, King Street, Covent Garden, W.C., several new and beautiful varieties of Daffodils are described and illustrated. These are the result of years of labour in cross-fertilisation, and represent a great advance upon the old sorts. We might specially mention Peter Barr, the finest and largest white trumpet Daffodil yet raised; Alice Knight, perianth white, trumpet creamy white; Cleopatra, a fine yellow trumpet, like Mouchet, but larger; Henry Vilmoren, a beautiful white trumpet; King Alfred, a large trumpet of an uniform rich golden colour; Lord Roberts, with trumpet flowers of enormous size, gold yellow; Loveliness, white trumpet; Maggie May, a giant Leedsii with white perianth and citron yellow cup; Mrs. George H. Barr, a lovely white trumpet; Peach, apricot-crowned Leedsii, Queen Christina, a flower with broad white perianth and lemon trumpet; Salmonetta, a Leedsii with white perianth and apricot-coloured fluted cup; and White Queen, resembling a white Sir Watkin. In addition, there are descriptions of hundreds of other varieties, and many useful hints on Daffodil culture.

THE GARDEN

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USEFUL COLONIAL AND FOREIGN FRUITS.

IN these days, when so much is said and written on the subject of "returning to the land," it is well to consider whether the occupation of farming as generally understood may not now be varied or extended so as to have a much wider meaning. To a certain extent this has been done of late years, for in addition to agriculture pure and simple we have long heard of vegetable, fruit, and flower farming, and even the term is sometimes applied to special flowers, as in the case of the extensive Orchid nurseries of St. Albans, but the bulk of the fruits grown on any large scale are those which flourish out of doors during the summer in this changeable climate of ours, such, for instance, as Strawberries, Raspberries, bush fruits, Plums, or even Apples or Pears. In addition to these we include Figs, Grapes, and Tomatoes as examples of extensive culture under glass. Whether such culture could be profitably made to include some of the well-known fruits which travellers only have a chance of tasting in perfection is a thought that may be worth considering, and the experiment in some cases might even be worth risking. It is a suggestion that we therefore offer, and give a short list of such plants as are most useful in their native countries. We are not unmindful that many practical difficulties may present themselves, and it may be said, as has been often said before, that many of the less known fruits might be brought hither in cold chambers by fast-going steamers. This may be so, but it cannot be denied that some of the choicest fruits lose much of their delicate flavour by a sea voyage. How seldom does one get the chance of tasting the delicious pulp of a properly ripened Mangosteen, a chance that may only occur once in the life of any but a traveller. Unfortunately, this chance is not likely to be of more frequent occurrence, for we cannot expect to grow, or even to import, Mangosteens into this country in sufficient quantity to supply the demand that would probably arise. Moreover, fresh grown fruits have always a flavour essentially their own, and for such there will always be a market when the flavour of the fruit is adapted to the British palate, or where that palate can be adapted to the fruit. The following are a few examples of some of the best known fruits that suggest themselves :

Custard Apple or Sweet Sop (*Anona squamosa*).—This fruit is known as the Custard

Apple by Europeans in India and as Sweet Sop in the West Indies. It is a small native tree of the Malay Islands, but is found in many parts of India in a semi-wild state, and is also extensively cultivated both in India and the West Indies, as well as in other tropical countries, for the sake of the fruit, which averages about $2\frac{1}{2}$ inches, nearly globose, but marked on the outside with numerous warts or knobs. The rind is thick, and encloses a mass of firm fleshy pulp, in which are embedded numerous black seeds. In well ripened fruits the pulp has a very luscious taste, somewhat resembling that of Raspberries and cream. The fruits appear to be more valued in India than in the West Indies. In the latter a fermented drink of the nature of cider is made from the juice, while in India the juice is much used to flavour ice puddings. In times of famine the fruit is said to have literally proved the staff of life to the natives in some districts.

(To be continued.)

CHRYSANTHEMUMS.

STIMULANTS FOR THE PLANTS.

SOOT WATER in a weak state is the best thing to apply first to the roots as a stimulant. One bushel of soot placed in a bag to 100 gallons of water will be ample. The water soaking through the soot in the bag becomes charged with the manurial properties. Water used in this manner may be given to the plants every time they require watering for a week, and then it is better to withhold soot water for three weeks, giving them another course after this. The stimulant may be used in conjunction with other liquid manures during the time soot water is in use, but it is not necessary to stop using other stimulants while soot water is being given to the plants.

When using soot water we would advise beginners to be careful. We have seen plants injured through using it too freely. It is far better to use it weaker and often. Chrysanthemums require a change of food, and the stimulants should be varied, using one sort for, say, a week, then have another. To the strongest growing varieties stimulants should be given every time water is required if the plants are well rooted. All stimulants should be used in a weak state to begin with, increasing the strength as the plants grow. If a spell of wet weather sets in for, say, a week together, it is wise to withhold all stimulants for a short time, as extra care is needed in applying water to the roots of any sort. In the case of weak-growing kinds liquid manure should be given occasionally, as over-feeding brings on premature bud-formation or malformation of the petals, caused by forcing the larger outer petals too quickly, and not allowing the centre of the flower-bud to fill up by degrees, as it should do under proper circumstances. When the soil in the pots is approaching dryness is the proper time to apply stimulants.

It is difficult to define the quantity of manure to use for making liquids, as so much depends upon

the requirements of the cultivator. A safer guide is to use the liquid made from animal manures about the colour of brown brandy. Sulphate of ammonia in careful hands is an excellent manure, perhaps unequalled, but the percentage of ammonia contained in the different samples varies so much that it is decidedly risky to use it. It is wise to act safely, that is, give it in a weak state, but often. The cultivator should be quite certain that the pots are full of roots before commencing the use of sulphate of ammonia. The best way to apply it is as follows: Dissolve one tablespoonful in four gallons of liquid manure and apply it to the plants once a week; the alteration in the colour of the leaves after its application can be quickly discerned if they were pale before. The colour of the flowers is also much improved. The pink-lilac flowers and darker shades are rendered much richer by the use of this manure. Some growers sprinkle the ammonia on the surface of the soil and water it in, but this is dangerous to the surface roots of the plants, as they are often burnt with the ammonia. The loss of the surface roots by this mismanagement gives a serious check to the plants.

When the flower-buds are forming in the points of the shoots which are considered the best for each particular variety, no matter whether it be crown or terminal buds, the application of stimulants should cease for a time until the flower-buds are formed and swelling, as during the time the buds are in the embryo state a check to the growth takes place. When to finally stop the use of stimulants of any sort and depend solely on clear water for the finishing of the blooms is a matter about which some growers disagree. Some advise that feeding be discontinued as soon as the bloom buds show colour, but in my opinion that is just the stage when assistance is required to develop the flowers. Continue to feed the plants until the blooms are three parts expanded, then cease the use of stimulants, as it will be found that plants in that stage do not require water nearly so often as those plants which are in a more backward condition.

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.

SOME BEAUTIFUL SEEDLING CARNATIONS.

One of the most beautiful lot of seedling Carnations we have seen has been sent to us by Mr. E. Carlyon, County Asylum, Fareham, Hants. The flowers are remarkable for their variety of colours, and a few of them are distinctly equal to those already named. What was so noticeable was the freshness of the colours, some pure selfs, others of

the bizarre and flake type, but very few were poor. A pure white, intense scarlet, soft rose, and clear yellow were conspicuous amongst the selfs. Mr. Carlyon sent the flowers just as they were gathered from the plants, and no thinning of the buds had been practised, which makes the size and fulness of the individual bloom the more welcome. Our correspondent writes: "We purchased 10s. 6d. worth of seed from Mr. Douglas, Great Bookham, Surrey, and out of the amount of seed received we had 256 plants. And to look at those growing they put one in mind of sheaves of Wheat. The seed was sown on April 1, 1903, and the seedlings were planted out July 3, 1903. The chairman of the committee thought some of them worthy of a name. He did not think they could be brought to such a perfection from seed. The soil here is very poor indeed. The bed was deeply trenched and liberally manured with well-decayed farm manure and old lime plaster from brick walls and rubbish out of old flues. The first year we planted a vegetable crop, and when those were cleared away the bed was again deeply dug and dressed with lime rubbish and rotted leaf-mould, also road scrapings. The Carnations were planted 2½ feet apart. We have very few single ones out of the lot. There is an average of 200 flowers on a plant."

CAPE PRIMROSES OR STREPTOCARPUS FROM THE OPEN GARDEN.

We receive from a reader of THE GARDEN, Rose Hill House, Ipswich, flowers of the Cape Primrose or Streptocarpus in many beautiful colourings with the following note: "Some of these flowers, hybrid Streptocarpus (Sutton's), came from the greenhouse, but for the last two years this beautiful Cape Primrose has blossomed here in the open. First, the ordinary grey-flowered variety was tried, and succeeded so well that this summer the handsome hybrid strain was tried and is succeeding perfectly, although the heavy rains of last week marred the flowers. The foliage is very soft in texture and delicate in hue, in the younger leaves especially. The plant thrives in leaf-soil and a shaded moist border. As an edging to a bed of crimson Fuchsias or bright-coloured Abutilons it would be charming, and a quite novel arrangement. The blue and grey-blue tones of the Streptocarpus being particularly effective in half shadow, in which also Fuchsias and Abutilons delight. Some of the bright Begonias, too, in partial shade might mass well. Perhaps you may deem the suggestion worthy of a note in your paper."

RARE PLANTS FROM SOUTH DEVON.

Mr. Fitzherbert sends three rare flowers from South Devon, *Bowkeria triphylla*, *Malvastrum lateritium*, and *Sphæralcea muroana*, with the following note: "I send you herewith a few flowers. The white one, somewhat like a *Calceolaria* in form, is *Bowkeria triphylla*, a very rare South African shrub. *Malvastrum lateritium* is a very pretty flower, its pale salmon-pink being set off by the carmine ring round the centre. My plant is about 2 feet high and as much through, and has just commenced to flower. *Sphæralcea muroana*, formerly *Malva Muroides*, has smaller cerise-pink flowers. It should be planted in the poorest soil possible or it does not flower freely. It is seen best draping a steep bank or rock. It is a very rapid grower. *Sphæralcea muroana* is a native of Columbia and *Malvastrum lateritium* of Monte Video. Both are hardy in the south-west."

NEW WHITE PERENNIAL PEA MOONLIGHT.

Mr. P. H. Mules sends from the Old Parsonage, Gresford, flowers of a very beautiful form of the perennial Pea, white, and in every way worthy of note. Our correspondent writes: "I raised it five years ago from seed; the third year the flowers were wonderful. You will note the arrangement of the pips. They are evenly placed round and up the stem, and then most of the stems (18 inches in length) carried from eighteen to twenty-two pips. Now the plant is so loaded with flowers that the pips are only fourteen to sixteen, but the beautiful habit is the same. I grow it as a bush. Under

the name Moonlight it has won many prizes. I have placed it in Messrs. Barr's hands for distribution. I also send a spray of *Eccremocarpus aurea*, a new and most lovely climber."

The *Eccremocarpus* flower is of a beautiful apricot colouring.

A WHITE SEEDLING CARNATION.

Mr. F. White sends from Keighley a seedling Carnation of purest white, and without the least sign of that objectionable splitting of the calyx which disfigures many otherwise fine varieties. Good as it is we do not think it is worthy of a name. So many beautiful Carnations come from a batch of seedlings raised from the best flowers that it is difficult to surpass them, but the variety sent is worth keeping for cutting, as the plants are strong in growth and the flowering stems long and branching.

RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for August has portraits of *Zingiber spectabile*.—Native of the Malay Peninsula. This is one of the brightest and most ornamental of a not very beautiful family, with spikes of heavily golden-rimmed bracts, out of which issue the flowers.

Vanda pumila.—Native of Sikkim. This is also known under the synonym of *V. cristata*, and is, perhaps, the least showy of a handsome family. It is seldom met with in cultivation, and the specimen figured came from Glasnevin Garden—the Irish "Kew." Its flowers, however, are not without beauty.

Thunbergia primulina.—Native of Eastern Tropical Africa. This is a very pretty greenhouse plant of shrubby habit of growth and foliage, covered with minute silvery hairs. Its flowers, produced at the axils of the leaves, closely resemble the common Primrose.

Tecoma shirensis.—Native of Tropical Africa. This is also known under the following synonyms: *T. Whytei*, *T. nyikensis*, and *Tecomaria shirensis*. This is a shrub of vigorous growth, with handsome bunches of yellow flowers, deeply veined with orange. It somewhat resembles *T. capensis*, but is a much finer and more ornamental plant.

Euphorbia viperina.—Native of South Africa. This is a succulent plant of no beauty, and is of merely botanical interest.

The August number of the *Revue de l'Horticulture Belge* figures

Sansevieria Laurentii.—Native of Central Africa. This is a handsome golden variegated stove plant which has not yet flowered, but which is well worth growing for its foliage; also

Rose Frau Karl Druschki, said to be the first and only really pure white Hybrid Perpetual in existence. W. E. GUMBLETON.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 16.—Exmouth (two days) and Clay Cross Horticultural Shows.

August 17.—Shrewsbury Floral Fête (two days); Amlwch, Burwash, Tynemouth (two days), and Calne Horticultural Shows.

August 18.—Aberdeen Horticultural Society's Show (three days); Kingsbridge and District Horticultural Society.

August 19.—Devon and Exeter Horticultural Society's Show at Exeter; Flamborough and District Horticultural Society.

August 20.—Small Heath Horticultural Society.

August 22.—Warkworth Horticultural Society.

August 23.—Royal Horticultural Society's Meeting in New Hall, Westminster; Royal Oxford Horticultural Society's Show; Brighton Horticultural Society's Show (two days).

Flower and vegetable trials at Wisley.—The suggested trials in the Royal Horticultural Society's Gardens at Wisley in 1904-5 are as follows:—*Floral*: Violas, six plants

of each variety, to be sent in February, 1905; Carnations, same quantity and time; Cactus Dahlias, two plants of each, to be sent in May, 1905. *Fruit and Vegetables*: Plums, bush trees, to be sent in by the end of October of this year; Apples, the same; Peas, half a pint of seed of each variety, to be sent in by February, 1905; Potatoes, twenty tubers, and Broccoli, half an ounce of seed, both on the same date; Tomato, twenty seeds of each variety, to be sent in by August 30 next, for winter trial. All the above are to be addressed to the Superintendent, R.H.S. Gardens, Wisley, Ripley, Surrey; if by rail, per L.S.W.R. to Horsley Station.

Windstorm in North Wales.

To-day (the 6th inst.) is the roughest day for wind I have known for years at this season. The damage that has been done in this part of the country is sad. Orchards of Apples and other fruits are completely stripped. What was promising to be a record year is now one of wreckage and disappointment, not only for gardens, but farmers also. Otherwise the season has been an excellent one, and all that could be wished for. To be deprived of such in the course of about five hours is a serious loss.—J. S. HIGGINS, *Rag Corwen*.

Opening of the Goldie Park, Maxwelltown, N.B.—On the 30th ult. the new Goldie Park, Maxwelltown, Kirkcudbrightshire, was formally opened by Provost Chicken, the ceremony of opening the two rustic bridges across the stream being performed respectively by Mrs. Chicken, wife of the Provost, and Mrs. Bowie, wife of the Burgh Surveyor; while the College Road entrance was opened by Mrs. Dobie, wife of the Town Clerk. The park was purchased with the proceeds of a legacy left in 1852 by the late Miss Goldie, Summerhill, which has been accumulating at interest until lately, when a suitable piece of land came into the market. The park has been well laid out, and it is intended that it should be still further embellished by additional planting. It is very conveniently situated, and will be a considerable boon to the inhabitants of Maxwelltown, the largest burgh in the county, although they have already the privilege of possessing several rights of way over charming walks in its neighbourhood.

British Gardeners' Association.

The hon. secretary *pro tem.*, Mr. W. Watson, Kew Road, Kew, writes: "Kindly allow me to remind readers of your paper who are interested in the British Gardeners' Association that the committee of selection cannot proceed further until the sum of £250 has been secured to meet the cost of a central office in London, a paid secretary, and other expenses, and 500 members have joined the association. Of the £250 required about £100 has been subscribed or promised, whilst the number of applications for membership up to the present is less than it should be. Expenses so far have been more than covered by donations received for the purpose. We are, therefore, in a position to keep donations towards the £250 and entrance fees and subscriptions untouched until the association is established on the lines prescribed by the prospectus. Forms of application and copies of the prospectus may be obtained from me. Candidates should send copies of their testimonials, or a stamped addressed envelope for their return if originals are sent. Entrance fees and subscriptions will be returned to candidates who are not elected. Secretaries of gardeners' societies are invited to co-operate with us in the effort to establish an association of professional gardeners by inducing their members to join it and by holding meetings for the purpose of making its aims and objects known. Arrangements will be made by the committee for a series of meetings in various centres for the purpose of more fully explaining the objects of the association and increasing the membership. It is hoped that the association will be brought up for discussion by every gardeners' society throughout the kingdom during the coming winter. It is only by the exercise of perseverance and patience and a determination on the part of all qualified gardeners to combine that the desired improvement in their conditions can be brought about."

Tufted Pansy Bessie.—This is a very good hot weather variety, standing well through it, and maintaining a continuous display of flowers. It was raised and introduced by Mr. William Sydenham, Tamworth, in 1901. The raiser describes the flower as a blush self and rayless, and this is a fairly accurate description of its colour. In certain seasons the flowers are sometimes edged and reticulated, and they are then very charming. From the earliest period in the flowering season this variety has done exceedingly well, and as the plant has a capital constitution and a good habit, it may be recommended for bedding.—D. B. C.

Tufted Pansy Marion Waters.—When recently looking through a collection I came across a beautiful group bearing the name of the variety under notice. The colour is very distinct, a pretty shade of blush lilac. It is an excellent bedding plant, having a tufted growth. The flowers are of good size, circular in form, and borne on erect stems in the greatest profusion. A fine orange eye also adds to their attractiveness, but there is a tendency to sport under certain conditions.—D. B. C.

Tufted Pansies and the weather.—Although the weather for some time past has been hot and dry, it is astonishing how well the plants have succeeded, although the quality of the flowers has left much to be desired. The recent heavy rains, however, have changed all this, and though only a few days have since elapsed, the tufted Pansies are fast regaining their former happy condition. Some sorts stand the heat much better than others, and none to-day look better than such sorts as Duchess of Fife, Goldfinch, and Ardwell Gem. It does not follow, either, that because a bloom possesses plenty of substance in its petals that it is necessarily one for hot weather. As a matter of fact, several of the stouter-looking flowers were the first to succumb. On the other hand, several of the more flimsy-looking flowers passed through the ordeal of the trying heat remarkably well, and this should certainly be a point in their favour. A good mulching at this period is highly beneficial, and that this may not present an unsightly appearance the coarser materials should be passed through a sieve with a broad mesh. In a little while the plants will overgrow the mulching material and develop a mass of growths.—D. B. CRANE.

Scholarships for young gardeners.—Three scholarships to young gardeners will be awarded during this month by the University College, Reading. 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. Successful candidates will be required to attend from October 1 next, to September, 1905, the course of instruction in the horticultural department and the gardens of University College, Reading. Each holder of a scholarship will be paid 15s. a week, and will, in addition, receive free instruction. Candidates must be of not more than twenty-two years of age, and must have worked for four years in public or private gardens. The course of training will include: Practical horticulture, theory of horticulture, account-keeping, correspondence, and general business methods, lectures and practical work in botany and chemistry in relation to horticulture. 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. Applications for scholarships must be made at once on scholarship forms to be obtained from the Registrar.

A new Raspberry.—The new Penwill's Champion is worth a note for its free cropping, growth, and large fruits. It was sent from Devon (Totnes) to the Holland Park show, and is said to be a very fine late variety. There is ample room for a new late Raspberry of the character of the new Champion, as in some soils the Raspberry if a poor grower soon dwindles, and the crop is wretched. Any variety that will fruit late into

the season is valuable. The introduction a few years ago of the excellent Superlative was a great gain, and this will fruit late if specially pruned. The newer variety is not unlike the last-named in shape, colour, and size, but the fruits are not so sweet, and the foliage from cut specimens sent is different. Though the fruits sent on the 26th ult. to the meeting at the new Horticultural Hall were less acid, they were excellent, and produced abundantly on the branches. The fruit in question on the 12th inst. received an award of merit, and will doubtless, after trial in other parts of the country, receive a higher award if it grows as freely as at Totnes. It was considered a great gain by many growers.—G. WYTHES.

New Strawberry The Latest.—Messrs. Laxton have given us so many excellent new Strawberries that I feel sure they will raise a still later one than the one named. There is room for a good late Strawberry, as it will be seen that The Latest was shown on the 12th ult. at Holland House, not at all an unusual period. I wish Messrs. Laxton would give us a Strawberry of the President type that would fruit well into August—I mean in the southern part of the country. It would be a great boon.—G. WYTHES.

New Strawberry Givon's Late Prolific.—This variety has been our best latest Strawberry this season. Where large quantities of Strawberries are grown, and these in season as long as possible, the new Givon's will be valuable for the latest supplies. I do not say it is the latest Strawberry grown, as by the side of Eleanor or Oxonian it was ripe at the same time, but the quality was so much superior to the older varieties; indeed, the only merit attached to Eleanor is its lateness and free growth in poor soils. Givon's Late Prolific is a handsome fruit; it is a dark red, though not nearly so dark as Waterloo, which is one of its parents, but having a firmer flesh. With me it is not a strong grower, but it fruits very freely, and grown on a north border it extends the Strawberry season until the end of July. Of course in heavier soils and in the northern part of the country it would be much later. Like all late Strawberries, I find much better results follow where the plants get ample attention in the way of moisture, and in light land the crop soon suffers. In planting select a cool site and on the flat, a sloping border is too dry.—G. W., *Syon*.

Rose Brunonis (the White Indian Rose).—One of the most interesting features in the Norfolk and Norwich Rose Show, held on the 7th ult., was a vase of this delightful old Rose, exhibited by Mr. W. Chittleburgh, gardener to Colonel Rous, of Worsted. This is one of the most handsome of all our climbing Roses. The flowers are pure white in clusters, with a yellow centre. This Rose is quite worth growing if only for its foliage, the dark green colour of which contrasts beautifully with the pure white petals. It is of a very vigorous habit, and to grow it well it is necessary to give it plenty of room. It is well adapted for covering the stems of old trees, and it has been known to cover a house in about two years. All lovers of single Roses should grow it.—T. B. FIELD.

Notes from Vomero.—*Rudbeckia hirta vomerensis* is an improvement on the old *R. hirta*. The flowers are larger, with broader petals, which are sometimes turned as in the Cactus Dahlia; the colour varies from light canary yellow to gold yellow; sometimes the outer half of the petals is canary yellow and the inner half darker. With the black disc and yellow anthers it is a very striking colour. For cutting the flowers are more elegant, not at all so stiff as those of the type. *Erysimum pachycarpum*: This old Wallflower is reintroduced by Mr. C. Sprenger from the Himalaya. It is better than the well-known *E. perofskianum*. It is a perennial, but is best grown as a biennial. Sow the seed early in autumn, and the seedlings will flower the following summer. They produce a great many long racemes with deep orange, sweet-scented flowers. An excellent plant for the rock garden. *Hemerocallis middendorffiana*: I have much admired this fine plant. Never before have I known the true species. *Hemerocallis minor, flava*, and also *disticha* fl.-pl. are sometimes

cultivated under that name. The leaves are broad and light green, the plant is a dwarf bush, and on the top of the flower-stalk are six to ten flowers, formed as a head, not elongate as the other varieties, between the very broad bracts. The flowers resemble somewhat *H. aurantiaca* major in colour and size, but are more elegant and finer; the petals are recurved, so that the bloom is more open than that of *aurantiaca* major; a fine velvet orange colour. The single bloom is open from sunrise to evening, but buds will open in water. *Angelonia integrifolia*: The old *Angelonia grandiflora* is an old favourite in the garden, and I hope that this new species will be also seen more in the future. In pots and in half shady places it grows very well from June to November. The spikes bear an immense quantity of well-formed flowers, lilac, marbled and spotted with dark purple. The leaves are glossy green. A very pretty plant when in flower, and well worth growing for market.—W. MULLER.

The white Everlasting Pea (*Lathyrus latifolius albus*).—During the past few weeks this fine climber has been one of the prettiest subjects in the hardy flower garden. It has been very truly described as "one of the hardest and most easily cultivated of plants," and except for a little attention in the way of staking, or in assisting its vigorous growths to develop, little else is done. We have some immense clumps, each bearing innumerable sprays of flowers. Although up to the present the weather has been very hot and dry, our plants, which were raised from seed about five years ago, appear to have revelled in the summer. There is no more charming sight in the garden than these plants running riot over a rustic arch, or as I once saw it at Gravetye Manor, over an old wall. In the latter position the plant appeared to have found its natural home. These Peas have never failed to ripen seed with me, and in the late summer or early autumn there is an abundant supply of good, well-matured seed to perpetuate the plant.—D. B. CRANE.

Nasturtium Liliput Snow Queen.—This is one of the novelties of the season, and is represented by a very dwarf compact growing type, the blossoms small in size, and of a creamy colour, approaching white. It appears to be a little delicate in constitution, but those who are on the hunt for novelties will no doubt find it interesting. Messrs. W. W. Johnson and Son, seed merchants, Boston, have a good form of it under the name of Daylight, which seemed to be approaching nearer to the white than the type. It is possible that improvements may come with careful selection. Efforts have been made in the past to secure a white dwarf *Nasturtium*, and with the strain known as Daylight it seems possible to be realised. We associate the colours of yellow, scarlet, and crimson more particularly with the *Nasturtium*, though other shades have been developed of late years.—R. D.

Silene Schafta.—A very free-flowering alpine of a branching character and a capital plant for masses, either on the rockery or in the border. It is not an early flowering species, like *S. pendula*, and therefore adapted to spring bedding, for in these arrangements it would not give satisfaction. Its flowering period is from July to September, and during this period its blossoms are produced in great numbers, and that continuously. The colour of the flowers is rosy-purple, and a mass is very pleasing. Some two year old plants from seeds have during the past two months put forth thousands of their pleasing flowers. These were put out when a few months old in an ordinary light loamy soil and an open position as a margin to some herbaceous beds. Here they quickly formed capital tufts and a few flowers twelve months ago, but this season they have been quite a feature. This is but one of the many instances which may be cited of purely alpine subjects, too frequently found starving in small pots, enjoying the freedom of being planted on the level ground where many are evidently far better accommodated.

Moss Roses.—Considering the popularity of Moss Roses, it is somewhat surprising that they are not more generally grown in amateurs' gardens. Everyone admires a bunch of half-expanded Moss

Roses, though, apparently, it is not everyone who possesses a garden that cares to grow them. Why such should be the case is a mystery, but it is, nevertheless, a fact, and I would here push forward the claims of these beautiful Roses. There is no reason whatever why they should not be as extensively grown as the Hybrid Perpetual or Tea-scented kinds, or, at any rate, every rosarian should possess at least half a dozen bushes in his or her garden. There is nothing difficult about the culture of Moss Roses, they being as easily managed as the more common kinds. Their principal requirements are a good sunny position, fairly rich soil, and judicious pruning. If these essentials are forthcoming the bushes will not fail to produce a plentiful supply of lovely Moss-covered buds.—C.

Visitors to Kew.—Between July 31 and August 2, 112,022 persons visited the Royal Botanic Gardens, Kew.

ORNAMENTAL SEEDS AND THEIR APPLICATION.

(Continued from page 97.)

OF a totally different colour and character from the seeds before referred to is that known as the Nicker Nut (*Cæsalpinia Bonducella*), a leguminous plant of tropical countries, the pod of which is covered with hard woody spines containing three or four seeds about the size and shape of common marbles and of a slaty grey colour (Fig. 4). The testa or outside coating of the seed is extremely hard and stone-like, and wherever the plant is common these seeds are used for ornamental purposes, being often strung alternately with the red *Ormosia* seeds for necklaces and bracelets. In a closely allied species (*C. Bonduc*) the seeds are more elongated or oval and yellow or orange coloured, or even black or nearly white. Cut in half and mounted in gold or silver they would make excellent decorative buttons for ladies' use, or for the tops of hat-pins or similar applications. Perhaps, however, the best natural heads for hat-pins are the fruits of *Elæocarpus Ganitrus* (Fig. 5) and of some of the Australian species of *Santalum*. The former is a large Indian tree belonging to the natural order Tiliacæ, and known in India as the Bead Tree on account of the hard, bony, tubercled Nuts being generally used in India as beads; when rubbed up with oil or roughly polished they are of a chocolate-brown colour, and are well set off in a socket and cap of gold through which the pin may be made to pass. These fruits are frequently to be seen utilised in various ways in Indian jewellery, and in addition to the species mentioned *Elæocarpus lanceifolius* and *E. tuberculatus* are also applied to the same purposes. Of a somewhat similar character, though sufficiently distinct in being more regularly globular, more evenly pitted, and of a light brown colour, are the fruits of the Australian *Santalums* or *Fusauus* (Fig. 6), which are also occasionally seen in curiosity shops mounted for use as jewellery. The capabilities of their extended application are, however, very great. A seed with the very appropriate name of "Horse-eye Bean" is furnished by a tropical climbing plant of the Leguminosæ. The common name is obtained from the similarity of the Bean to the eye of a horse, in size, shape, and general appearance (Fig. 7). It is furnished by a species of *Mucuna*, probably *M. urens*. In its dried state it becomes extremely hard, and being of some thickness it lends itself admirably for manipulation into small boxes by removing the cotyledons and mounting the hard testa with a hinged gold or silver rim. In this manner excellent appendages can be made for watch-chains, or a half seed properly mounted would make an interesting and unique brooch.

Space, however, will not allow me to enlarge upon the material, but before closing attention must be directed to some of the smaller seeds more suitable for use as trimming for ladies' dresses, and for this purpose some of the smaller varieties of the well-known ornamental seeds known as Job's Tears, the

produce of a grass (*Coix Lachryma Jobi*) are specially adapted (Figs. 8, 9, 10, 11, 12, 13). The hard, shiny, globular form, about the size of a large Pea and looking more like earthenware beads than any natural growth, are common enough in most tropical countries, but even these might find an extended use in more civilised centres, though they are often seen in the windows of fancy jewellers made up into necklaces or bracelets. It is, however, to some of the Indian forms that special attention may be directed, not because no efforts have hitherto been made to introduce them to English trade, for at the time of the Colonial Exhibition before referred to they were introduced to the notice of manufacturers of the so-called bugle trimming as a substitute, or rather as an improvement on the glass beads used for that purpose, as being much more durable from their non-liability to break. Their varied shapes and sizes and natural white colour are strong recommendations, besides which, as was stated at the time, they are capable of taking stains, either black or of bright colours.

In conclusion, we will refer only to another remarkable seed which, so far as we know, has never been seen in this country except in the cases of museums, but which, from its being densely clothed with a permanent velvety tomentum of a rich chocolate-brown, would make a charming and entirely novel dress decoration. These seeds are the produce of small trees or shrubs belonging to the natural order Guttiferæ and to the genus *Quina*. The seeds of two species are shown in the illustration (Figs. 14 and 15), and a necklace made of the large seeded form is also shown (Fig. 16). Unfortunately, the trees producing these velvet seeds are somewhat rare, consequently they are not easy to obtain in large quantities; but those of your readers who have friends or correspondents in Jamaica, Trinidad, or British Guiana would be repaid by obtaining from them a few, if only sufficient to make a necklace.

In these notes we have taken only a few of the best examples as an introduction to a subject of much interest, and one which also might be made of much importance.—JOHN R. JACKSON, A.L.S., &c., Late Keeper of the Museums, Royal Gardens, Kew.

THE FLOWER GARDEN.

SOME PRETTY HARDY ANNUALS.

AN annual has been described as a plant the seeds of which are sown, while the plant grows, blooms, and dies within a few months. But it is possible to convert annuals into temporary biennials by sowing the seeds of some, such as Sweet Peas, Shirley Poppies, *Eschscholtzias*, *Silenes*, *Limnanthes*, &c., in the autumn, and having them in flower earlier than when sown in March and April. *Eschscholtzias* especially come very fine in spring when sown in autumn. The late Mr. Anthony Waterer of the Knap Hill Nursery, Woking, used to take great pride in his autumn-sown *Eschscholtzias*, and they glorified his garden in the spring months by the size, richness, and profusion of their golden blossoms. I had recently, in Lincolnshire, an opportunity of inspecting a trial collection of hardy annuals, and made notes of those which were in full bloom during the third week in July. Among them were the double forms of *Acroclinium*, viz., *roseum* and *album*, with their single counterparts also, 1 foot or so in height and full of blossom. The *Antirrhinums* may be included among annuals, though biennial and even perennial in character; if sown in March the plants will bloom bountifully the same season. *Asters* were not yet in bloom; they were late in getting a start. *Bartonia aurea* produces large yellow blossoms freely, but the habit of growth is straggling; still, it

is very effective in a mass. *Brachycoma iberidifolia* (the Swan River Daisy) is worth mention on account of its pale violet-blue colour and freedom of bloom. *Cacalia coccinea* is a showy and free annual; the colour of the small blossoms is orange and crimson. The *Candytufts* form a pleasing group of annuals, but as they produce seeds freely the period of bloom is not prolonged. The best are the Carmine, Dunnett's Crimson, large White Spiral, and the new Rose Cardinal. Among the *Centaureas*, the purple and white Sweet Sultans are most useful for cutting for decorative purposes; a fine form of the white named *The Bride* is being introduced by Messrs. Jarman and Co., Chard.

Of the annual *Chrysanthemums* there are the single and double forms of *C. coronarium*, the double white and double yellow being the most popular. *C. carinatum* (tricolor) is represented by a number of varieties, such as *burdigeanum atrococcineum*, &c., and there are certain newer named varieties, but none of them can be depended upon to come quite true from seed; still, whatever form they take they are bright and effective. There are double varieties of *C. carinatum*, but they do not appear to be so popular as the single-flowered. *C. segetum grandiflorum* is a fine form of the yellow Cornflower, showy, and excellent for cutting from. *Clarkias* are numerous; one of the best is the double crimson form of *C. pulchella*; the purple and white are also both good. The Tom Thumb varieties are also double-flowered. *C. integripetala marginata* and its double variety, rose, bordered with white, are also pretty.

Collinsia bicolor is an old but very popular annual, and so is *grandiflora*. *C. verna*, a charming blue, is now rarely seen; the seeds should be sown on slightly elevated spots in the open as soon as ripe, and then it is lovely in early spring. The climbing *Convolvulus major* can be had in several varieties, and they form charming objects in the border. One of the most showy of blue annuals is *Convolvulus minor monstrosus*, but all the dwarf *Convolvuli* are very pretty. *Cyanus minor* Emperor William is a fine deep blue form of the Cornflower; it should be sown in a mass to have it in perfection. Too much cannot be said in praise of the Indian Pinks (*Dianthus chinensis*), and especially of those two fine types *Heddewegii* and *laciniatus*; their large blossoms are extremely showy, while there are double-flowered varieties for those who prefer them. The *Eschscholtzias* are highly attractive; the deep golden crocea, the dark orange Mandarin, and the rose and white Rose Cardinal are three of the best. But to see crocea in all its beauty seeds should be sown in the open in autumn. The *Godetias* form a large group of annuals, and especially those of the *Whitneyi* type; they are of generally compact growth and great profusion of bloom. *Lady Albemarle*, *Lady Satin Rose*, *gloriosa*, and *White Pearl* among others are very gay subjects. Nor must the *Helichrysums* be overlooked, were it only because of their usefulness in winter decorations. The *Larkspurs* also are among the gayest of hardy annuals; there are tall and dwarf varieties to select from, while the old blue, branching though of loose growth, supplies a great mass of bloom.

The *Lavatera*—*rosea splendens* and *alba splendens*—can be bracketed with the crimson *Malope grandiflora* and its white variety; they produce large and striking blossoms. *Linum grandiflorum rubrum* is one of the freest and most showy of crimson-flowered annuals, and there is a white variety also; an annual variety of the colour of the perennial *L. perenne* would

be a great acquisition. Of the annual Lupins the yellow is one of the best, being dwarfier in growth and free of bloom. *L. nanus* is a charming blue-flowered annual, and should be in every selection.

Mignonette, being so fragrant, is a universal favourite. The Crimson Giant is a good sort of compact growth; Golden Queen, when represented by a good strain, is an excellent companion to it; the Golden Machet is a little larger in the spike; and for pot culture the Red Machet is one of the best. The Nasturtium has many representatives, tall and dwarf. Of the latter section Empress of India, intense crimson; Golden King, deep golden-yellow; Beauty, bright orange-crimson; and Terra Cotta are the best. An interesting novelty in dwarf Nasturtiums is known as Liliput Snow Queen, of dwarf, compact habit, the flowers creamy sulphur, bleaching to white.

No garden can be without Sweet Peas, and the choice of varieties is great. New varieties are constantly being added, and some of them are distinguished by increased size and novelty of colour. The practice of sowing so thickly in rows is a mistake; the branching habit of the Sweet Pea is to a great extent lost. The Bush Sweet Pea is an American selection, and scarcely worth growing. The Cupid Sweet Peas are found to flower best from home-saved seeds. The two earliest Sweet Peas are Earliest of All and Mont Blanc; these are quite a week in advance of any others. Of the annual Poppies the Shirley type are deservedly popular, and they bloom with increased fineness when sown in autumn. There are some fine double varieties among the Carnation Poppies, that known as the Victoria being especially good. The Tulip Poppy, intense scarlet, is a dwarf-growing but extremely striking single-flowered type. Where there is a warm, sunny spot and a light soil the gorgeous Portulacas may be sown with advantage; they are sun-loving plants. The *Rhodanthes* also do well on a similar situation and soil.

The *Salpiglossis* has been fittingly named the Orchid among the hardy annuals, the improved large-flowering varieties being both brilliant and varied. They should have an open sunny position. The compact varieties of *Schizanthus pinnatus* are charming annuals; they should have liberal treatment to be seen to the best advantage. *S. wisetoniensis* appears to be too delicate for the open ground, but it makes a charming cool greenhouse subject. The varieties of *Silene pendula* are useful annuals, and sown in the autumn with *Limnanthes Douglassii* make attractive spring beds. The miniature Sunflowers are of tall growth, but they make a good display and are very free of bloom. The varieties of *Viscaria cardinalis* and of *occulata* are bright and showy, and the *Whitlavia grandiflora* and *Gloxinoides* deserve a place in the garden.

I have by no means exhausted the list of hardy annuals. I have been content to select the most desirable of those which bloom in July and August, without making any pretensions to furnishing a complete list. R. DEAN.

SEEDLINGS OF SAXIFRAGA LONGIFOLIA.

MR. J. WOOD, Hardy Plant Nursery, Kirkstall, Leeds, writes: "I send you a photograph of some beautiful seedlings of *Saxifraga longifolia*. The blooms are not all open on the stems in the picture,

but are just now presenting a pretty effect here. The seed for these germinated some three years ago, and was to have produced the type *S. longifolia*, but owing to cross fertilisation with other choice sorts growing near at hand, the seedlings presented the appearance of containing some six or eight distinct forms even in their foliage. A number have bloomed this season, and quite fulfil expectations. Some stems are packed with perfect pyramids of blossom in the manner of *S. longifolia*, the individual blooms, however, being larger than those of the Queen of Saxifrages, and dotted uniformly with pink spots. The foliage of this form is broader and more ligulate than that of *S. longifolia*, seeming to point to a cross with *S. macnabiana*. A great advantage is gained in the fact that these seedlings propagate themselves more or less freely by offsets, thus ensuring a more constant and reliable supply of bloom than is the case with the type, which seldom lives after flowering."

AN UNDERCLIFF GARDEN.

LAST summer I had the good fortune of being permitted to inspect a most interesting garden on the Undercliff, Isle of Wight, namely, Belvedere,

and there the rock crops out of the soil, offering excellent sites for Agaves, Aloes, and other succulents, of which a large number are grown.

Asparagus Sprengeri is quite at home in the open. *Bouvardia triphylla* was a blaze of scarlet flowers. This has been in the open for five years. *Buddleia Colvillei* was represented by two fine specimens about 10 feet in height in full bloom.

Belvedere is the only garden in which I have met with the South African shrub or tree *Bowkeria triphylla*, which is not mentioned in any botanical dictionary that I have consulted. Here there are two examples, the largest about 7 feet in height. Both were bearing numerous buds at the time of my visit. I was told that the flowers are white. On a rocky ledge *Campanula* G. F. Wilson was a mass of deep purple flowers about 2 feet across, and I noticed *C. puuctata*, but rarely seen in gardens. *Cantua dependens* is a fine shrub about 5 feet in height against a low wall. This flowered last year. *Cephalanthus occidentalis* (the American Button-wood) was in good growth, as were *Cestrum (Habrothamnus) elegans* and *Chorizema cordatum*. The Mexican *Cleome speciosa*, the well-known conservatory plant *Clivia miniata*, and the pretty *Cytisus purpureus incarnatus* were doing well. The orange-flowered *Digitalis obscurus*, mentioned



SEEDLINGS OF SAXIFRAGA LONGIFOLIA AT LEEDS.

St. Laurence, the property of Mrs. Gwytherne-Williams, and on the 1st ult. I was enabled to renew my acquaintance with it. Notes have from time to time appeared in THE GARDEN on plants grown at Belvedere, and on page 193, Vol. LXII., Mrs. Gwytherne-Williams gave a list of the tender shrubs and plants cultivated there. The following notes have no pretension to be exhaustive, and merely draw attention to a few of the rare subjects seen during a too brief tour of inspection. The day was a perfect one, and the beauty of the garden was enhanced by the white wave-crests, raised by a fresh westerly breeze, glistening in the sunshine on the blue expanse of sea below. Facing due south, and protected on the north by the sudden rise of perpendicular cliffs, the garden offers an ideal home for tender plants, and its capabilities in this respect have been taken full advantage of.

Among the many climbers on the house I noticed a strong plant of *Mandevilla suaveolens*, *Clematis Nellie Moser*, and *Actinidia arguta* in flower. On the lawn the best of the Water Lilies are grown in a small ornamental pool, in one corner of which is a plant of *Crium aquaticum*. Through the sloping garden below a shallow streamlet ripples, adding much to its interest and beauty, and here

by Mrs. Gwytherne-Williams on page 53 as having been brought from Granada, was in bloom, and the South African *Diosma (D. gracilis)* had formed a healthy little shrub. *Diplopappus filiformis* was 6 feet across. *Embothrium coccineum*, so common in Cornish gardens, was present, as was *Eriostemon buxifolius*, an Australian shrub bearing rose-coloured flowers.

Gazania latiflora was evidently quite hardy, there was a fine specimen of the Australian *Hakea suaveolens*, the Japanese *Halesia hispida* was bearing its fringed white flowers, and the Myrtle-like Australian *Hypocalymna robustum*, which bears pink blossoms, was looking well. Of *Kniphofias* I noticed *K. Northia*, *K. multiflora*, and *K. quartiniana*, the fine-foliaged herbaceous *Kitaibelia vitifolia* was 6 feet in height, and *Kunzea peduncularis* was pointed out. *Lagerstrœmia indica* had formed a bushy shrub 3 feet in height and 5 feet through; *Lagunaria Patersoni*, a shrub or small tree from Norfolk Island, which bears large solitary flowers, was 5 feet high; *Lasiandra (Pleroma) macrantha* was growing well; and the Australian *Leptospermum bullatum*, *Ledum palustre*, *Leonotis Leonurus* from the Cape of Good Hope, *Leucanthemum (Chrysanthemum) nipponicum*, *Ligularia macrophylla*, a strong-growing

perennial, with large glaucous leaves and yellow flowers, were inspected. That well-known inhabitant of our glass houses, *Libonia floribunda*, was evidently happy in the open garden, as was the Chilean *Lobelia Tupa*, and the North American shrub, *Lythrum alatum*, was bearing its deep pink flowers.

Megacaryon orientale was much after the style of the *Echiums*, and *Micromeria græca* is chiefly remarkable for the almost ammonia-like exhalation which is emitted from its bruised leaves, and which is sometimes strong enough to bring tears to the eyes. It is almost impossible to keep cats away from this plant, as they are intensely fond of rolling on it. The Australian *Melaleuca densa*, *Myrosma cannaefolia* syn. *Calathea Myrosma*, and *Osteomeles anthyllidifolia* from the Pacific Islands, the last bearing its white, fragrant, Hawthorn-like blossoms, were viewed. The giant Bellflower *Ostrowskia magnifica* was present, and of *Pentstemons* I noted *P. cordifolius*, *P. glaber*, 4 feet by 6 feet, and *P. tubiflora*, a pretty species 2 feet 6 inches high, with white flowers. The rarely-seen *Poinciana* (*Cæsalpinia*) *Gilliesi* was represented, *Polygala oppositifolia* looked particularly healthy, and on the rocks *Putoria calabrica* was growing freely. *Romneya Coulteri* was bearing its splendid white crêpe-like blossoms, set off by the central golden bosses, and *Salvia dichroa* from the Atlas Mountains was very striking, great branching plants over 6 feet in height, holding numerous epikes of lavender-blue and white blossoms; *S. angustifolia* was also grown.

Solanum crispum had formed a huge bush by a trellis, *Sparmannia africana* was growing strongly, as was the South African *Sutherlandia trutescens*, which bears handsome scarlet flowers. Three little plants worthy of notice were *Trichonema* (*Romulea*) *speciosum*, whose rose-coloured flowers were expanded; the South African *Tulbaghia violacea*, displaying the last of its pretty lavender-blue blossoms; and *Wulfenia amherstiana* from the Himalayas, which bears spikes of bright blue flowers.

Among the bulbous plants were *Bletia hyacinthina*, *Brodiaea laxa*, many Cape bulbs, including *Brunsvigia Josephinea*, *Cyrtanthus McKenii*, *Ixias*, *Sparaxis*, and *Freesias*, the last increasing freely from self-sown seed; *Ismene Macleana* from Lima, *Cumingia campanulata* from Chili, *Chlorogalum pomeridianum* from California, *Hippeastrum* hybrids in flower, *Eucomis pallidiflora*, *Calla elliotiana* and *C. Pentlandi*, and *Paneratium illyricum* with numbers of self-sown seedlings springing up around the parent plants, while in shaded nooks *Cyclamen persicum* was at home. Of climbing plants may be named *Mannetia bicolor*, *Pueraria thunbergiana*, the rare Australian *Brachysema acuminatum* bearing scarlet flowers, the Jalap Plant (*Exogonum* [*Ipomœa*] *purga*), *Ipomœa rubro-cerulea*, *Lonicera tatarica*, *Hydrangea scandens*, and *Rosa gigantea*, which, however, has never flowered.

Numbers of succulents are well grown on the outcrops of rock. Amongst the many *Aloes* I noted *A. Cerra* in flower, and in the good collection of *Agaves* *A. Victoria Regina*. *Opuntias*, *Cacti*, *Echinocacti*, and *Mesembryanthemums* are also grown in quantity, *M. tigrinum* in the last-named genus attracting attention by its striking foliage.

S. W. FITZHERBERT.

TREES AND SHRUBS.

IMPROVEMENT OF EXISTING WOODS.

HOW to improve woods that are suffering either from neglect or, what is perhaps more common, over-attention, is a question that no one can attempt to decide without a knowledge of these two facts about trees: (a) All trees grow in height during youth and put on girth later; (b) some sorts thrive under the shade of other trees.

(a) Trees that are still putting on height fast are in the pole forest stage, and the forester can do with them very much what he likes. Some sorts

naturally grow to stem, others to crown, and the latter especially need crowding in youth or they will develop a branching top and become formed trees too soon. The Oak may be taken as a type of this class of tree. If given too much room when young it grows into a miniature formed tree with a very short stem; just like an Apple tree in fact. To prevent this, to make it confine its growth chiefly to the stem, it must be crowded during youth. The British system of mixing Oaks with Larches, wrongly called nursing and in reality a temporary mixture, is one way, and a good way, of drawing Oaks upward. Whether the Larches are called nurses or not the principle is the same; the Oaks must be crowded during youth or they will not make long stems. When once they have had their height-growth stopped by over-thinning nothing the forester can do will bring them back to the pole forest stage. He can thicken the boles, but he cannot make them longer. On land of poor quality for Oaks long boles cannot be expected under any circumstances, and, as Oak knees and Oak bark are no longer of great value, it is doubtful if it would pay to keep Oaks on such land at all. On land of good quality the forester should not be content with short holes even in standards over coppice, though he cannot expect to get them quite as long under this system as under High Forest.

(b) Light-demanders (such as Oaks) cannot maintain good canopy for any length of time, and therefore should sooner or later be underplanted whether they are grown in dense or open woods. The effect of underplanting is not only to perfect the canopy and so improve the soil, but also to make the stems grow more cylindrical.

With these two principles to guide him the forester may now see what, if anything, he can do to improve his woods. If an Oak wood is still in the pole forest stage he must first decide whether he will open it out or keep it dense, and he will thin more or less, or not at all, accordingly. The chief thing to avoid is the attempt to make an open wood of Oaks that have been left so long dense that they ought to remain dense. But the usual class of wood that is in need of improvement is that which consists of Oaks that have passed into the tree forest stage. As a rule they are past improvement, not one tree in ten being worth saving. They are too far apart for dense culture, and their crowns are too badly developed for standards. Here it seems that the best thing is for the forester to harden his heart and make a clear cut of the worst places if not of the whole wood. Here and there groups of fairly good trees may be found which might be worth underplanting, but as a rule the trees worth saving are few and far apart. The system known as "High Forest with Standards" might come in here if the trees to be left are likely to stand the exposure. A thin wood of Oaks that is past improvement might be used as a protection wood for a thick crop of young trees, chiefly shade-bearers or moderate shade-bearers, Silver Spruce, and Beech, or Sycamore, Douglas and the black and Weymouth Pines.

Another typical wood in need of improvement is the small over-thinned Beech wood in exposed sites on chalk. It may be underplanted with Beech or Silver, and a broad belt of the same planted round it. A Spruce wood about twenty-five to thirty years old and containing only about 500 or 600 trees to the acre, is sometimes barbarously thinned, although every tree in it is branched down to the ground. It should be planted up at once with shade-bearers or moderate shade-bearers. The original Spruces are ruined for good clean timber, but the new planting should do well. A Larch wood that has been left too dense, a common mistake with us, should be thinned with caution. No dominant tree should be cut out, however bad its shape. Only dead and suppressed trees should go, and underplanting should accompany every thinning. The result will be an underplanting of uneven age, but the canopy must be preserved at all costs. The underwood should be Beech or Silver, or both, and, in the larger gaps and more sheltered parts, Douglas Spruce is not recommended as an underwood either for Larch or Oak. All thin woods that have a dense growth of

Brambles, Bracken, Heather, Whortleberry, &c., under them should be underplanted. The more valuable the crop is the more important it is that it should be underplanted. In the wood, on a well-drained slope sheltered from the morning sun in winter, and from the afternoon sun in summer, a piece of ground may be enclosed as a nursery for the young trees until they are large enough to plant out. Large plants will be wanted to plant in Bracken or Gorse, but in Brambles or Heather smaller ones will do. The nursery should be kept clean, but it is generally a mistake to clear all the weeds away before planting out the young trees. Weeds in reason are useful not only as nurses but also as a protection from rabbits and hares.

The general result of improving woods by underplanting will be to make them "hollow underneath" from the sportsman's point of view. This will not matter so much to the modern big shoot man who drives his pheasants, for he can always keep patches of holding cover where he wants it; but it will spoil the woods for the old-fashioned sportsman who likes to do his own beating. As, however, the old class of shooter will soon be extinct, this is of small moment. A more important objection to the improvement of our woods, more important because it is more often raised, is that they will lose their beauty. Beauty is so much a matter of taste that it is useless to argue about it. It is enough to state that for a forester the sample British wood has no beauty. Certain glades and park-like tracts should of course be preserved, for they are things which all admit to be good of their kind and worth saving. But a mismanaged wood of ill-grown and unhealthy trees smothered with weeds and dying by inches, though under certain conditions of light it may provide an artist with a picture, cannot be said to have thereby earned any more right to existence than a field of Poppies or a ruined barn, or any other of the many signs of agricultural distress that delight the æsthetic eye. Disease and death do not appeal to the forester; his standard of beauty is health. And it is possible that in time even the artist may discover that a healthy wood has a beauty of its own.—Sir HARALD G. HEWETT, Bart., in *An introduction to the Study of Forestry in Britain*.

PLANTING EVERGREENS IN SUMMER.

I AM not aware that anything new can be said in favour of planting evergreen trees and shrubs during the summer months. The questions bearing on this matter are two—the probable results as compared with spring planting, and the effect that a hard winter has on newly-planted subjects. As regards the first, I have no hesitation in saying that the best results will be obtained from summer planting in all cases where the plants to be moved exceed 6 feet in height, provided they have only to be moved from one part of the grounds to another; but in the case of large plants that have to be brought long distances by railway, I should prefer to wait until the middle of September. When practicable, I prefer to prepare all the plants to be moved if they have stood in the same position more than four years, and if they exceed a height of 6 feet. The preparation should be made in the previous October, and should consist in digging a trench round the stem of the tree 2 feet deep and 1 foot wide. The distance that this trench must be from the tree will depend on its age and size; for a tree or evergreen shrub 8 feet high, the inner side of the trench should be 2 feet from the stem all round, and the width should be in proportion to the height. In digging out the trench all roots met with should be cut clean asunder; the trench may then be filled in again and left in that state. It will be found, when the time arrives for removing the tree thus operated on, that every root cut asunder has broken out into a mass of fibres, and it is considered that these fibres are of far greater benefit to the tree after removal than the single root would have been if left undisturbed until the time of lifting. Experience proves this, for in practice I find that all trees or shrubs prepared in the way just described suffer much less than those not so treated; in fact, the percentage

of living trees thus managed is far in advance of that of the other.

The question as to the effect that a hard winter has on newly-planted trees is one that demands the serious attention of intending planters. It must be taken for granted, I think, that a shrub or tree only recently removed is not in so good a condition to withstand the severity of a long winter as one that had not been disturbed. In my own experience I have had trees removed during the late summer months that have stood to all appearance sound and healthy up to the time when severe frost has set in, then become brown in the foliage, and ultimately die. This, however, to my mind does not to any serious extent injure the cause of summer planting, because it is only in the severest winters that trees suffer thus. On the contrary, it cannot be too well known that there is a decided gain by adopting summer planting. If a tree is moved towards the end of July, it will in a great measure have completed its growth for the year; and if moved as soon as it has done that it will get, other conditions being favourable, pretty well re-established before growth commences next season, and under ordinary circumstances it may be expected to make a fairly good growth the first year after removal; but in the case of autumn or spring planting it generally takes the whole of the next season to recover, and makes little or no growth.

There is just one particular time in the summer eminently favourable to removal—I mean that period of the tree's first summer growth when it comes to a standstill. Many trees make two

growths in a year, and the best time to move them is in the interval between the first and second growth. A little observation will enable anyone to detect when that time occurs, but as the habit of different trees varies, the selection of the time for removal may extend over three or four weeks, according to the character of the subjects to be operated upon. J.

NOTES ON HARDY PLANTS

SEDUM CÆRULEUM.

A SHORT time ago, when going through the delightful garden of the Misses Blackburn at Park House, Kirkcudbright, I saw the exquisite little blue Stonecrop in flower. It is now many years since I first made its acquaintance, and I still recollect the pleasure it gave me when in full flower. *Sedum cœruleum* is practically unique among the Stonecrops. It forms a neat little plant, not more than 2 inches or 3 inches high as a rule, and is plentifully adorned with beautiful little blue flowers. In some respects it reminds one of *Ionopsidium acaule*, but it is, I think, even prettier than that little annual. Seeds of *Sedum cœruleum* are not over plentiful, but they are to be obtained from some of the leading firms, and should be sown thinly where they are to bloom in April or May. The seedlings should be well thinned out, and when this is attended to good plants, such as those at Park House, will be secured.

SISYRINCHIUM BERMUDIANUM.

I WAS pleased to see the note on *Sisyrinchium* from "S. W. F." in *THE GARDEN* of July 30 (page 76). There is a good deal of confusion in the nomenclature of these plants, as may be seen from the synonymy in Mr. Baker's "Handbook of the Iridæ." In that work it will be observed that Mr. Baker gives *S. bermudianum* as one of the synonyms of *S. angustifolium* of Miller, the latter being *S. anceps* of gardens. Mr. Baker also describes the true *S. bermudianum*, but I find that *S. angustifolium* is still being sold for *S. bermudianum* in some nurseries, and the writer has received it under that name. It seems to me that the plant figured as *bermudianum* in Maund's "Botanic Garden" is *S. angustifolium*, but what is the one which Maund figures as *S. bermudianum majus*? S. ARNOTT.

HUNNEMANNIA FUMARIÆFOLIA.

This beautiful Mexican member of the Poppy family is now particularly handsome with me. It was, apparently, introduced into this country in 1827, but was little grown until a few years

ago, when it was sent out as an annual, and it was as an annual that it received an award of merit from the Royal Horticultural Society in 1898. Nicholson, however, in his "Dictionary of Gardening," gives it as a half-hardy perennial, and three years ago, when staying at Penzance, I saw some plants in Mr. T. B. Bolitho's garden at Trewidden that had come through two winters in the open without protection. My single plant, that I procured as a seedling last year, passed through the winter unharmed, although entirely unprotected, and is now a bushy specimen rather over 2 feet in height and as much through, and is bearing some two dozen fine flowers that measure 4 inches in diameter, fully an inch larger than those in the coloured plate which appeared in *THE GARDEN* (page 536, Vol. XXXI). It is probably only in exceptionally favoured sites and in mild seasons that it would be possible for this plant to pass through the winter unharmed in the open if unprotected, since Messrs. Robert Veitch and Son of Exeter tell me that they invariably lose it in the winter, and a friend who lives close to me found that none of his plants survived last winter. The superiority of a two year old plant to a seedling is, however, so marked that I consider the *Hunne-mannia* is well worth protection during the winter by hand-lights or frames. The large, bright yellow flowers, with their rich orange anthers, standing aloft on tall stems above the grey-green *Eschscholtzia*-like foliage, have a charming effect.

CAMPANULA GARGANICA ALBA.

The white form of *C. garganica* is a charming little plant for a pocket in the rock garden or for covering a rough stone edging. The small, star-like flowers are flat and borne in such profusion as to cover the plant in the months of June and July. Though the purple-flowered type is pretty, the white variety is more attractive. It succeeds in sun or semi-shade. The form known as *C. garganica hirsuta* has hairy leaves, and is rather more vigorous than the type. Of this plant there is also a white variety.

GLADIOLUS TRISTIS VAR. SULPHUREUS.

This charming *Gladiolus* is but rarely seen in gardens, yet it is one of the most attractive of its family, with its soft, pale yellow colouring, and is particularly valuable owing to the earliness of its flowering period, for mid-April generally sees it in full bloom in the south-west. Although it is odourless during the day, as evening approaches it becomes deliciously fragrant, thirty or forty flower-scapes scenting the air with a perfume almost *Magnolia*-like. The leaves are Rush-like, and when cut horizontally show a section like a cross in form. Though a native of Natal, it appears perfectly hardy in the south-west, even when planted only 3 inches beneath the surface and entirely unprotected. The corms increase very rapidly from offsets, and by the middle of July the leaves have withered. A coloured plate of this *Gladiolus* appeared in Vol. XXXVIII, page 58, of *THE GARDEN* under the title of *Gladiolus sulphureus*. According to "Nicholson's Dictionary of Gardening," however, *G. sulphureus* is a synonym for *Babiana stricta sulphurea*, a plant that is only 9 inches in height, whereas with me the strongest scapes attain a height of 3 feet 6 inches. Nicholson describes *G. tristis* as having the three upper segments of the flower spotted with minute reddish-brown dots, a form which I have never seen; and in Vol. LII., page 301, of *THE GARDEN* there appears a photograph sent by Mr. Greenwood Pim showing *G. tristis* with a band of purplish-black stretching up the centre of each of the three higher petals. This form I know well, as it is the one that is apparently always sent out when *G. tristis* is ordered, all of my friends whom I have advised to get *G. tristis* having been supplied with it. Mr. W. Watson, in the article which accompanied the coloured plate, explains this variation, for he writes: "*G. tristis* is very variable. It is said to vary in the colour of its flowers from pure white to almost wholly purple." He further says: "The plant represented in the plate and called *G. sulphureus* is merely a large-flowered, self-coloured



GLADIOLUS TRISTIS VAR. SULPHUREUS.

variety of *G. tristis*." The plate, however, hardly does justice to the plant, as, although it gives a good representation of the individual flowers, it depicts only two on a scape, whereas I have had as many as five blossoms on strong scapes, all of which were expanded at the same time. The variety of *G. tristis* called *sulphureus* is far more attractive than the striped form, and doubtless is superior to the spotted type mentioned by Nicholson, and to the purplish forms alluded to by Mr. Watson. Intending purchasers should therefore specify in ordering *G. tristis* that the variety *sulphureus* should be supplied.

CAMPANULA LACTIFLORA.

THIS is one of the finest of the border Campanulas. From its specific name one would expect its flowers to be white, but their colour is a pale lavender-purple in the majority of cases, though considerable variation occurs in the tint of the flowers in individual plants, the colour ranging from deep purple to almost pure white. It is a very robust grower, often attaining a height of 6 feet, and bearing enormous heads of flower. Numerous seedlings spring up around old-established clumps, and these often vary somewhat in colour of bloom. It is of the easiest possible culture, and is the best Campanula for growing in the shrubbery, seedlings springing up beneath low shrubs, spearing their branches with their flower-spikes and blossoming finely above their heads. At one time this plant was known as *C. celtidifolia*. Being a native of the Caucasus it is perfectly hardy.

HERBERTIA PULCHELLA.

THIS pretty little Chilean Irid has just flowered with me in a narrow border of light soil in front of a wall facing south-west. The blue Tigridia-like flowers are sweetly scented and last but a day. The bulbs that I procured were evidently not full-sized ones, as the plants only attained a height of 5 inches and bore but one flower. *Cypella Herberti*, from Buenos Ayres, growing next to the *Herbertia*, has, on the other hand, made marvellous growth, some of its flower-stems being 3 feet 2 inches in height. It is in full bloom, and has been so for a month, numbers of fresh flowers expanding every day. It appears likely to continue in blossom for a considerable time.

BRAVOA GEMINIFLORA.

THIS Mexican bulb is now in full flower in a sunny, wall-backed border, and is an exceedingly pretty sight. Its tallest flower-stems are just 3 feet in height and hold about twenty blossoms. The drooping orange-red flowers are very effective, and, unlike the Tigridias, retain their beauty for a lengthened period. The lower flowers are borne singly, but the upper ones are in pairs, hence the plant's specific name. It was introduced into this country more than sixty years ago, and is said to grow in the mountains of Mexico at a height of 7,000 feet. It appears hardy in the south-west, for I have known it in a garden in that district for some years.

S. W. FITZHERBERT.

Kingswear, South Devon.

THE ROSE GARDEN.

ROSE CLIMBING WHITE PET.

THIS is a delightful pillar Rose, and has all the attributes of a satisfactory garden variety. It is very free-flowering, and if given fairly good treatment it grows well. The accompanying illustration is from a photograph taken in the Royal Gardens, Kew; the plant is one of many that were planted two or three years ago to cover a pergola of iron uprights connected by chains. All the pruning necessary is to cut away sufficient of the old wood that has flowered to make room for the new. Climbing White Pet is at its best in late June and early July, it is purely a summer flowering Rose, but its non-perpetual character

is perhaps more than compensated for by the wealth of its bunches of white flowers that make such a lovely display while they last.

WALL ROSES AT GLAMIS CASTLE, N.B.

AMONG the many features of interest in the fine gardens of the historic Glamis Castle, the seat of the Earl of Strathmore, in Forfarshire, are the wall Roses. Mr. Wilson, the gardener, has made a good selection both of the older and the newer sorts, and they are generally doing well. Among those noted on a recent visit were Bouquet d'Or, Bardou Job (unsurpassed in its class), William Allen Richardson (of splendid colour), Vivid, the favourite Homère (quite hardy here), L'Idéal, Mme.



ROSE CLIMBING WHITE PET AT KEW.

Alfred Carrière (a most useful one), Carmine Pillar, Dorothy Perkins, Alister Stella Gray (one of the most useful here), and many more. These Roses are admirably cultivated at Glamis, and give great quantities of bloom. S. A.

ROSE GLOIRE DES ROSOMANES.

FOR brilliant colouring this old Rose is hard to surpass. Perhaps in pillar form it is seen at its best. The more modern Rose Grüss an Teplitz is more brilliant, but then we do not obtain such an early display as with Gloire des Rosomanes. I am more than ever convinced that we must not allow these old Roses to drop out of cultivation as they are threatened by the advancing Hybrid Tea.

Where, for instance, is there a Hybrid Tea that can surpass a pillar of the old Hybrid Perpetual Anna Alexieff, or the still beautiful Abbe Bramere. We should prize these old Roses if only for their delicious fragrance. I gathered recently a handful of that old Rose Paul Perras, and the fragrance from it was most noticeable. Who would willingly lose the old red Rose Sénateur Vaisse or the once popular Jules Margottin? No; whilst every opportunity should be afforded to make plantations of the present day favourites, the old Roses should not be entirely crowded out or neglected, for they, like all Roses, pay for attention.

ROSE PHILADELPHIA RAMBLER.

I WAS much pleased with this variety as seen at Holland House recently. The colour is decidedly deeper than Crimson Rambler, and the form of the individual flower is more perfect. I am told there is also a perpetual flowering tendency, if so it will be a real gem. Perpetual flowering rambles are only a question of time. The Rose garden in autumn is a delightful place, but what will it be when we shall have arches and pillars as brilliant then as they now are in June and July?

ROSE JEANNE BUATOIS.

THIS fine hybrid Tea does not appear to be much known. It bears a magnificent bloom quite large enough for exhibition. The colour is white with faint lemon tint, form globular, flowers very deep and substantial. It is rather impatient of wet, and although a profuse bloomer one could not recommend this Rose for garden decoration as better than the beautiful white varieties already so well known.

ROSE AURORE (CHINA).

WHILE lacking the profuse flowering habit of Laurette Messimy, this charming variety is steadily coming to the front rank as a decorative Rose. The colour alone would secure it popular favour, every orange-yellow bud is so exquisitely formed; in fact, for all practical purposes it is a Tea Rose. The ruby-coloured foliage and wood are in themselves a beautiful feature, which loses none of its effect when this Rose is massed near grass. It is a variety worth planting largely in the autumn.

ROSE LADY CLANMORRIS (H.T.)

THIS beautiful Hybrid Tea has a flower as large as any of the varieties grown, with, perhaps, the exception of Mildred Grant. They are also of good substance, which is a valuable trait in an exhibition Rose. Modern varieties are exquisitely beautiful in form and colouring, but there are not many that can claim exhibition standard. The colour of Lady Clanmorris is creamy white, with delicate salmon centre, the edges of the petals being margined with pink. This variety, too, has a pleasing fragrance. P.

ROSE MRS. J. LAING.

THIS fine garden Rose has been flowering delightfully with us, the plants having been put in as late as April last, and there is a brilliant promise for the autumn. Of course to the rosarian no variety is more familiar, as it is usually well represented at the exhibitions and in the garden also. It is well to recall that this Rose was raised by the late Henry Bennett, who gave us Viscountess Folkestone and many other Hybrid Teas, but, unfortunately, when on the threshold, so to speak, of his great work of hybridising Roses he died. Mrs. John Laing has rose-coloured flowers, not very strongly fragrant, but there is a suspicion of a sweet Rose perfume, and it is excellent in the border, where it forms a dense, strong, and leafy bush. It is important in the search for novelties not to forget these fine old garden Roses. We were looking through a large collection recently and Mrs. John Laing was conspicuous for the strength of its stems and clear fresh colouring. We have a group of it, and have gathered many bunches for the house. It is always wise to relieve newly-planted Roses of their flower burdens; it saves their strength for the autumn display.

NEW AND RARE PLANTS.

ANGRÆCUM INFUNDIBULARE.

AT the first meeting of the Royal Horticultural Society in their new hall on the 26th ult. Lord Rothschild (gardener, Mr. Dye) exhibited this remarkable Orchid, then flowering for the first time under cultivation in this country. The plant shown was collected on the Victoria Nyanza, Uganda, in 1902. Although this *Angræcum* has never before flowered under cultivation in Britain, it was first found some forty years ago in West Africa, but dried specimens only of it were sent home.

The specific name has reference to the remarkable inverted funnel-shaped lip; the broad frontal lobe is white and the mouth of the throat is green. The lip tapers gradually, and extends behind and upwards as far as the base of the flower-stalk. At the end of this there is a tail some 3 inches or 4 inches long. The greenish sepals and petals are convolute, rolled back so as to meet almost all along the margins. The Orchid committee awarded a first-class certificate to this plant.

GAILLARDIAS.

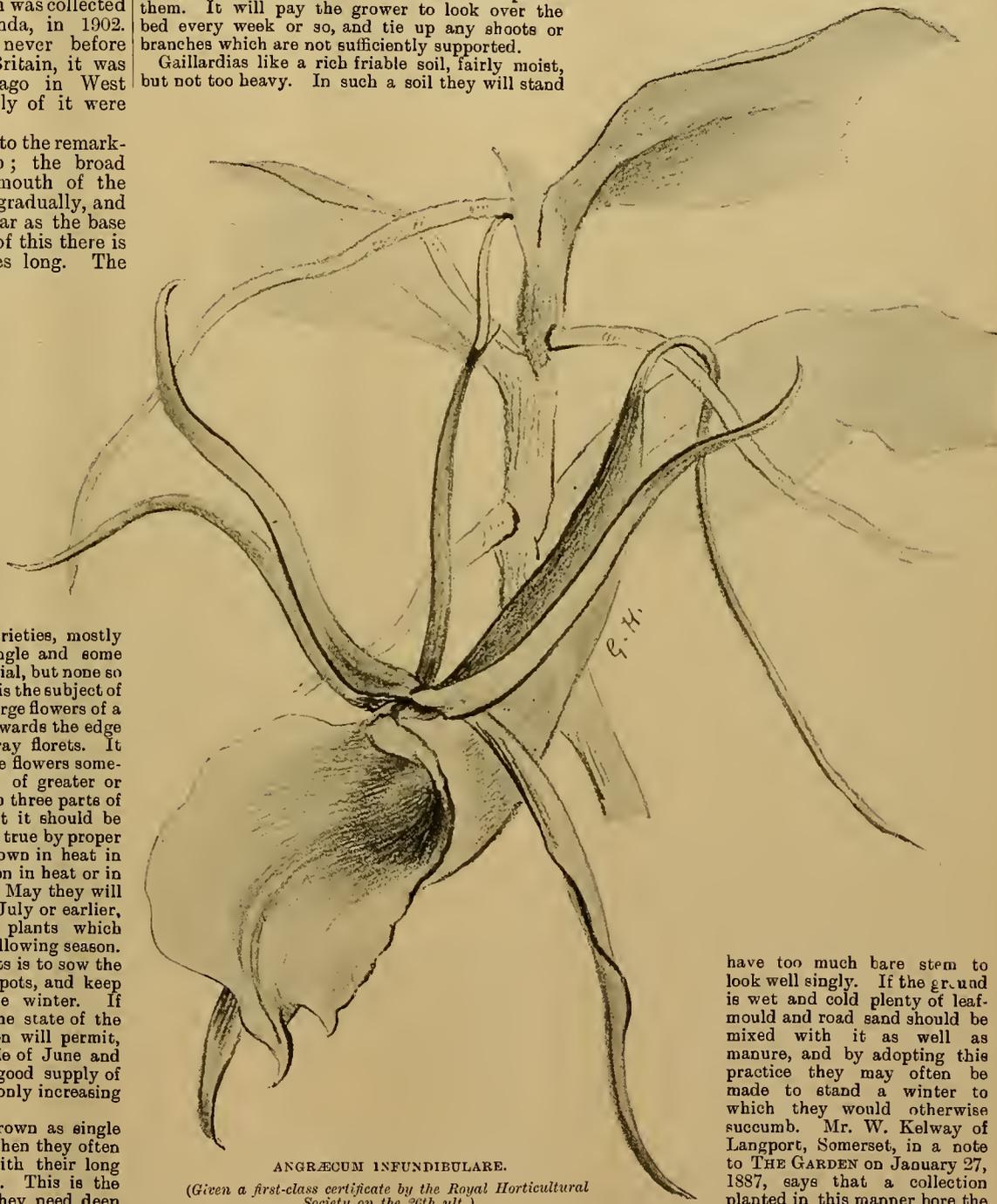
GRAND perennial plants are the *Gaillardias*, scarcely equalled by any other, either in the length of time they blossom or in the profusion of flowers they produce for cutting. There are several species of *Gaillardia* and many varieties, mostly hybrids of *G. grandiflora*, some single and some double, some annual and some perennial, but none so fine as *G. grandiflora maxima*, which is the subject of this article—a single variety, with large flowers of a fiery red colour shading to gold towards the edge of the petals, or, more correctly, ray florets. It sports a little, the red portion of the flowers sometimes being a clearly defined band of greater or less width, and sometimes taking up three parts of the length of the ray florets. But it should be possible to obtain the seed perfectly true by proper isolation of varieties. If seed is sown in heat in February, and the seedlings grown on in heat or in a cold frame till the beginning of May they will come into bloom by the middle of July or earlier, though there are generally some plants which refuse to run up to flower till the following season. A much better way of rearing plants is to sow the seed now, pot them off into 3-inch pots, and keep them in a cold frame through the winter. If planted out as early in March as the state of the ground or the mildness of the season will permit, they will be in bloom by the middle of June and will last till October, providing a good supply of cut flowers the whole time, cutting only increasing their floriferousness.

One sometimes sees *Gaillardias* grown as single specimens on a dry mixed border, when they often present a very poor appearance with their long bare stems and their side branches. This is the worst place possible for them, as they need deep digging and rich manuring, neither of which are possible on a mixed border; and they also need a good supply of moisture, which is not possible in the summer time if the hungry roots of strong-growing perennials like *Phloxes*, *Michaelmas Daisies*, *Sunflowers*, &c., are within reach. They should be given a piece of clear ground, which has been dug two spits deep and well manured, early in the winter if possible, so that it has time to settle down before the spring, thus inducing a stronger and less succulent growth. In such a soil

they should not be planted more closely together than 2 feet, as with such a root run and abundance of plant food they will make fine plants 3 feet high with a number of strong shoots, some of them as large as whole plants grown under indifferent conditions. It often pays to thin out these shoots, as they are apt to crowd each other and become weak, and so get broken by the wind. They need a good deal of tying up in any case, and this should be done early. The central stem of each plant should have a stake fixed to it, while the stronger side growths should have stout 3-foot sticks put to them. It will pay the grower to look over the bed every week or so, and tie up any shoots or branches which are not sufficiently supported.

Gaillardias like a rich friable soil, fairly moist, but not too heavy. In such a soil they will stand

ground will have become rather exhausted by the previous season's display. If the soil is wet and cold the plants cannot always be trusted to remain through the winter. In any case, if a good supply of these flowers is wanted year after year it is well to sow a packet of seed every summer and do away with a bed which has bloomed two seasons, putting out the new plants in a different place. Bold groups are best for making a display, as the plants



ANGRÆCUM INFUNDIBULARE.

(Given a first-class certificate by the Royal Horticultural Society on the 26th ult.)

the winter without any protection, and, though no trace of them may be seen during the winter, in March or April a thicket of shoots will spring up from the crowns, and these should be thinned as early as possible so as to get good strong stems. These will flower by the end of May in a favourable season, a time when cut flowers are not at all too plentiful. Some thoroughly rotted manure should be spread among them in the early spring and just lightly worked in with a trowel, as the

have too much bare stem to look well singly. If the ground is wet and cold plenty of leaf-mould and road sand should be mixed with it as well as manure, and by adopting this practice they may often be made to stand a winter to which they would otherwise succumb. Mr. W. Kelway of Langport, Somerset, in a note to *THE GARDEN* on January 27, 1887, says that a collection planted in this manner bore the drought of several successive

summers better than any other herbaceous perennial grown at Langport, and stood the winter so well that not 3 per cent. suffered.

Gaillardias make a good bed, though for the purpose *G. grandiflora compacta*, growing only about 1½ feet in height, is to be preferred. Sometimes they are pegged down, and when good strong plants are put in so that there are plenty of side shoots a very beautiful effect is obtained, the ground being completely covered and the whole

bed a mass of blossom. Gaillardias are easily propagated from cuttings, which are best taken in the early autumn, and put round the sides of pots in a sandy soil, and these set in a cold frame. They should be left so till the spring, when they may be planted out in their permanent positions. Cuttings, however, never produce such large robust plants as seedlings. In the profusion of bloom produced, and the consequent abundance of seed heads, they resemble Sweet Peas, and all these dead blooms should be picked off at frequent intervals, thereby much prolonging the display. From a bed of only eight or ten plants I was able last summer to cut a double handful of blooms every week from June till the end of September, sometimes twice a week, much to the delight of my friends.

ALGER PETTS.

GARDENING OF THE WEEK.

FRUIT GARDEN.

PEACHES.

REMOVE this year's wood that has fruited and all superfluous growths, so as to give next year's bearing wood full exposure to the sun. Syringe the trees heavily every afternoon. Do not allow them to become at all dry at the roots; the surface may appear wet from daily syringings, and the soil near the roots be dry. Liquid manure should be given to all trees that require it, especially to old ones that have carried heavy crops of fruit. Any trees in this house that are making too strong growth or not fruiting satisfactorily may require root-pruning, and should be attended to as soon as the first leaves commence to fall or even earlier. The trees should be kept well shaded and freely syringed for a short time afterwards. Thoroughly cleanse the trees with the hose-pipe or an insecticide if necessary to clear them of red spider. Give full ventilation with plenty of liquid manure to old trees.

LATER HOUSES.

Gather ripe fruit and keep up a constant circulation of cool dry air. Later trees, which are carrying heavy crops of fruit, should be well mulched and have liberal supplies of liquid manure or clear water given them. Thoroughly syringe the trees on all favourable occasions, and elevate the fruits by placing pieces of lath under them to give full exposure to the sun. Close the houses for a few hours after syringing in the afternoon, and afterwards admit air for the night to obtain good colour and high flavour.

FIGS.

The pot trees for early forcing next season should have every attention in watering and syringing to have the wood well matured by the end of next month. The trees should be placed outside in a sunny position when the wood is fairly well matured and freely syringed until the leaves fall. Thin the fruit freely on trees carrying a second crop or they will be small, and give diluted liquid manure at short intervals. Later trees in cool houses must be well mulched, liberally fed, and freely syringed on bright days. Any trees that require repotting should be attended to as soon as they are cleared of their second crop of fruit; at the same time be careful not to overpot the trees if they have fruited well. Use good fibrous loam, lime rubble, and burnt ash, with a sprinkling of bone-meal, and plenty of drainage.

STRAWBERRIES FOR FORCING.

The earliest plants which were potted last month are making good progress. Any plants which still require potting should be seen to at once and kept in the shade a few days, then placed in an open position on a good ash bottom, and carefully treated as advised in previous calendars.

Impney Gardens, Droitwich. F. JORDAN.

ORCHIDS.

COLAX JUGOSUS.

This beautiful cool house Orchid is well worthy of a place in all collections, the new growth being

now forward enough to enable any repotting or surfacing to be done, using a compost made up of equal parts of fibrous loam, peat, leaf-soil, and sphagnum, mixed with some sand and small crocks. Ordinary flower-pots are well suited to their requirements. Place over the bottom a few clean crocks, and complete the drainage by nearly half filling the pots with rhizomes. Keep the compost sufficiently low to allow of a surfacing of sphagnum. Plants newly potted will require very little water for some time. The warmest end of the cool house or the coolest end of the cool intermediate house is the temperature in which it should be grown.

ZYGO-COLAX VEITCHI, WIGANIANUS, AND AMESIANUS.

These beautiful hybrids that have been obtained from the foregoing species crossed with the Zygotetalums are much better growers, and may be treated in the same way as advised for Colax jugosus. The new growth is generally rather earlier, so that when repotting is necessary it must be done a little sooner.

ONCIDIUM CONCOLOR.

This is one of the most attractive Orchids. Its pendulous racemes of soft yellow flowers are freely produced during the spring months. This species has the unenviable reputation of soon deteriorating in this country. Good culture is of vital importance, yet discretion is of equal importance if the life of these free-flowering Orchids is to be prolonged. Plants that have flowered freely and long often do not make good pseudo-hulbs. Now if those are again allowed to flower heavily the constitution of the plant will be impaired. If, however, those that have failed to produce good bulbs were given a rest for a season by removing the flower-stems as soon as visible the plants would be able to recuperate themselves. In the past the receptacles used have been shallow perforated ones; these should be discarded and preference given to ordinary flower-pots that are provided with holes by which they may be suspended. Half fill them with chopped rhizomes, and use a mixture of two parts fibrous peat, two parts sphagnum, and one part leaf-soil mixed together, with some small crocks and coarse sand. Pot moderately firm, keeping the base of the leading bulbs slightly lower than the rim of the pot, surface with sphagnum, and suspend them in the cool intermediate house. Water very carefully until the new growths have taken hold of the fresh material. Some are not yet ready for potting, especially those that flowered late, but when the new growth is about 2 inches high is the best season for the work.

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

KITCHEN GARDEN.

CAULIFLOWERS.

WHERE this vegetable is in demand as early in the season as possible, seeds should now be sown. Winter the plants in frames. Two sowings should be made—one now and another a fortnight hence. If the autumn should prove mild, the second sowing will probably give the better plants for transferring to frames. In this garden Walcheren proves the best sort for this system, it being hardier than any of the others, and much less subject to "buttoning." The seed should be sown thinly, so that the plants may be sturdy and hardy from the outset. Although birds are not so troublesome at this season, it is safer to net the seed-bed. The plan of wintering Cauliflower plants is being discarded by many gardeners, as some of the extra late Broccoli provide heads till the earliest Cauliflowers are fit to cut; but, as the Broccoli crop may be ruined by a severe winter, it is well to be on the safe side. A fine new Cauliflower has been tried here this year named Mont Blanc. It was planted out at the same time as those wintered in frames, and was fit to cut about ten days before any other. The heads, though not large, are of the purest white, and of its being the earliest there can be no doubt.

CELERY

is now growing rapidly, and will require frequent attention. Should this very dry weather continue

for any length of time, Celery, unless receiving copious waterings, will be very liable to run to seed early. It is better to go over the trenches about every three weeks, adding a little soil each time instead of a heavy earthing of several inches at once. If the trenches have been well treated with good farmyard manure no chemical manure need be given, except a dressing of soot. Before the work of earthing up is commenced all side growths and a few of the bottom leaves should be removed. At this time the soil should not be made too firm, and the surface should be kept loose and open, to allow as rapid growth as possible.

GENERAL WORK

will chiefly consist of plying the hoe among all growing crops. As soon as ground is cleared of Potatoes, Cauliflowers, &c., all the remaining stems, leaves, and stumps should be removed. If Potato disease has appeared the stems should be at once removed from the garden and burned. If vegetable land is not too plentiful second cropping will be necessary. Late Broccoli may still be planted, as well as Savoys, Kales, and Cabbage, on ground cleared of Potatoes and other early crops. Inspect all plots of winter crops, filling up the blanks. Give a slight earthing up to Savoys and winter Cabbages. Remove flower-stems from Rhubarb and the seed-vessels from Seakale, to encourage the formation of good crowns for forcing.

Hoptoun House Gardens, THOMAS HAY.
South Queensferry, N.B.

MISCELLANEOUS.

IN PRAISE OF RICHARD HARRYS.

A PLANTER OF ORCHARDS.

SAVE in the writings of some Elizabethan antiquaries little record is to be found in English literature of the name of Richard Harrys. It has not even been inscribed in that great book of fame, the "Dictionary of National Biography." Yet I think the Irish fruiterer to King Henry VIII. deserves a humble place, at least, among the famous men of the earlier part of the sixteenth century. It may be said of him that he found England a wilderness, and made a considerable part of it a rich and pleasant garden.

The land was then an expanse of green desolation, overrun with sheep. As Camden said, these animals, that used to be gentle and timid, had grown so wild and ravenous that they devoured men, and laid waste fields, homesteads, and towns. This may appear an extraordinary fact in natural history, but it admits of quite a simple explanation. Landowners, having discovered that the rearing of sheep was more easy and profitable than tillage, owing to the expansion of the wool trade, usurped the common lands, evicted their tenants, and converted their estates into immense pasture grounds. Farms, churches, and hamlets disappeared in the waste of verdure; and England was for ever bereft of that numerous class of peasant farmers who, in France and other foreign states, have done much towards the solution of the agricultural problem. It has been calculated that out of a population of 5,000,000, 670,000 persons were left without employment.

While the poor starved, the rich lived largely on Flemish and French produce. But the King's fruiterer could not see why England should not have at least orchards of her own, if not cornfields. In the year when the lesser monasteries were suppressed, and the homeless peasants in the poorer districts rose in formidable insurrection, he did the little that in him lay towards founding that period of comparative prosperity and internal peace which culminated in the latter part of Queen Elizabeth's reign. Of greater importance, perhaps, than his undertaking in itself was the fact that its wonderful success incited men to exploit in other ways the fertility of the soil, and so brought back more people to the land. Harrys' achievement is related in the quaintest manner by William Lambarde, in "A Perambulation of Kent," a work which, composed in 1570, has the distinction not only of being

the first of our county histories published, but of still remaining one of the most interesting and best written. The story occurs in a description of Tenham parish, which is worth citing:

"Heere have wee, not onely the most dainty piece of all our Shyre, but such a Singularitye as the whole Britthish Iland is not able to patterne. The Ile of Thanet, and those Easterne parts, are the Grayner; the Weald was the Wood; Rumney Marsh is the Meadow plot; the Northdownes towards the Thamyse be the Conygartbe, or Warreine; and this Tenham, with thirty other parishes (lying on each side this porte way, and extending from Raynham to Blean Wood), bee the Cherie garden and Apple orcharde of Kent.

"But, as this at Tenham is the parent of all the rest, and from whome they have drawn the good juice of all their pleasant fruite: So is it also the most large, delightsome, and beautifull of them. In which respect you may phantasie that you now

our Lord Christ 1533, obtained 105 acres of good ground in Tenham, then called the Brennet, which he divided into ten parcels, and with great care, good choise, and no small labour and cost, brought plantee from beyonde the Seas, and furnished this ground with them, so beautifully as they not onely stand in most right line, but seems to be of one sorte, sbape, and fashion, as if they had been thorow one Mould, or wrought by one and the same patterne."

Seven years after the planting of the New Garden, as it was called, £1,000 worth of Cherries was produced from thirty-two acres of land. Rumours of such extraordinary crops created an interest in the growing of fruit in the remotest parts of Eogland; and country gentlemen, having obtained grafts from Tenham, were soon able to say to their friends—

"You shall see mine orchard, where, in an arbour,
We will eat a last year's Pippio of my owne grafting,"

as Justice Shallow, with the honest pride of a man who was at least a successful gardener, remarked to Falstaff. The New Garden was then what John Webster said all fine works of translation were—a paradise into which were gathered the treasures of the world. Apple grafts from France, Cherry and Pear grafts of various sorts from the Low Countries flourished there, and probably the new Plum trees from Italy, which were introduced about the same time. So skillfully were the trees selected and planted that the first foreigner to write on fruit growing in England, Milton's versatile friend from Poland, Hartlib, said that our Cherries, Apples, and Pears were still the best of any, although it seemed to him that we had lost somewhat of the art of orcharding since the days of Harrys.

Harrys' actions, truly, smell sweet and blossom in the dust. What a glorious monument he now has in the orchards extending from Kent far into the Midlands and the West Country! On a fine day in spring the prospect from Boughton Hill, four miles west of Canter-

bury, over the parishes mentioned by Lambarde, from Blean in the hollow southward, to Rinham westward by the Medway, and Tenham northward by the Swale, is still one of the fairest and goodliest in the kingdom. A grey church tower and some dark red roofs, showing above the mass of bloom, mark the site of the villages, while, were it not for their tall, white-capped oast-houses, many of the old farmsteads scattered in between would be hidden by the flowers of their fruit groves. So bleak by contrast seem the bare brown fields where young Hop-shoots are beginning to twine about the bristling poles, that one regrets that Kentish farmers should have turned so many of their orchards into Hop grounds in 1552, only nineteen years after Harrys had made northern Kent into a garden as beautiful almost in

summer and autumn, when the foliage is hung with ripe fruit, as it is when dressed with the pure blossom in spring—*Longman's Magazine* (August).

GRASSES FOR WINTER.

Most Grasses and wild plants that are suitable for drying for decoration during the months of the year when flowers are difficult to obtain are now ripe enough for cutting, and most of us will be thinking of replacing our last year's stock. The Cat's-tails (*Typha latifolia*) are perhaps the most useful of aquatics, and are very effective. If cut in time, and just now they are about right, they will last from one season to another, but if left too late they will burst. A very suitable plant to use in conjunction with the *Typha* is *Arundo conspicua*, one of the most beautiful of our tall, reed-like Grasses. Its graceful silky plumes mixed with the brown tail-like spikes of the *Typha* look very handsome. It should be used in preference to the Pampas Grass, except for high wall decoration, being much lighter. The Aquatic Grass (*Poa sp.*) must not be forgotten, for it is light and strong, and dries well. The feathery tufts of the Cotton Grass (*Eriophorum vaginatum*) may also be used with good effect. A very valuable addition to our collection is the *Eryngium*. There are many varieties to choose from. They last almost any length of time, but gradually lose their colour. While uncut they should be well tied up to prevent the stems from growing in fantastic curves, which may be awkward in decorating. Another large and ornamental genus of plants is the *Echinops*, or Globe Thistle. The blue or white florets look very pretty among Grasses, &c. All the above-named flowers and Grasses may be effectively combined in a terra-cotta vase about 18 inches in height. The Cat's-tails and the *Arundo* can hardly be cut with too long stems. An arrangement of this kind is a charming finish to a corner of a drawing-room. If colour be desired, nothing is so showy as the large seed-pods of the Gladwyn (*Iris foetidissima*), showing the large orange-red berries. The common Teazel (*Dipsacus sylvestris*) would also give a touch of light colour when the flowers are freshly cut.

For smaller vases and for mixing with fresh flowers, the ornamental flowering Grasses are invaluable. *Agrostis nebulosa* and *A. pulchella*, the Quaking Grasses (*Briza*), Turk's-head (*Lagurus ovatus*), and *Eragrostis elegans* are the best. These are all annuals, and may easily be raised from seed. They should not be gathered until they are fully open, or they will shrivel and curl up. *Typha minor*, also the bright crisp flowers of the Everlastings (*Helichrysum*) and the lighter *Rhodanthes* are very useful to give solidity to arrangements of the finer Grasses. The *Helichrysums* and the *Rhodanthes* should be gathered when but partly opened and hung head downwards in a cool place till the stems are dry. None of the above should be put into water at all when they are cut for drying.

THE FRUIT GARDEN.

THE LOGANBERRY.

AMONGST the various fruits which have been lately introduced into our gardens the Loganberry may be said to be the most valuable, for it is both hardy and prolific, producing in abundance fine fruit of remarkably good flavour. This plant is a hybrid between a red Raspberry and one of the finer varieties of Blackberry from America. The fruit is very much like an enormous Raspberry in appearance, but with a darker bloom and a longer shape, the flavour being specially luscious, and, at the same time, pleasantly sharp. It produces its fruit on the growths of the previous season, in the same way as the Raspberry, and should be cultivated on much the same lines, cutting out the old wood yearly in autumn and training the long shoots, which



THE LOGANBERRY.

see *Hesperium Hortos*: if not where Hercules founde the golden Apples (which is reckoned for one of his Heroical labours) yet where our honest patriote Richard Harrys (Fruiterer to King Henrie the 8.) planted by his great coste and rare industrie, the sweete Cherrv, the temperate Pipyn, and the golden Renate. For this man, seeing that this Realme (which wanted neither the favour of the Sunne, nor the fat of the Soile, meete for the making of good Apples) was nevertheless served chiefly with that Fruit from forreine Regiões abroad, by reason that (as Vergil saide), *Pomaque degenerant sucos oblita priores*; and those plantee which our ancestors had brought hither out of Normandie had lost their native verdour, whether you did eat their substance or drink their juice, which we call Cyder, he (I say) about the yeere of

are thrown up from the base in arches, by tying them to those of the next plant, which should be placed about 5 feet away. Rich mulching (with cow manure in a light soil) will enable the fruit to swell properly. This mulch should be laid down in March when the fresh growth begins, the fruit being produced in June, before the Raspberries are ripe. The thorns of the Blackberry are fortunately absent from its stems, which are covered with small red spines. The foliage is handsome and vigorous, and no blight appears to attack it. There is no doubt that this plant will be most popular when it is better known. It is, however, not possible to propagate it by seed, as this has a tendency to revert to the original parent types, so that it cannot be relied upon to produce the true Loganberry, which should be propagated by suckers in the same way as the Raspberry. Loganberries are not likely therefore to be too plentiful for some years, and all who can grow this delicious fruit should not fail to plant it in October.

EARLY SUMMER PLUMS.

OUR first early Plum this season was freestone Sturt, which is one of the late Mr. Rivers' seedlings, and, in addition to its earliness, it is a sure cropper. In our light soil it is one of the most reliable. The fruits are not large, but sweeter than many of our later kinds. The raisers describe it as a dessert Plum, but the flesh, though pleasant, is not rich; rather, it is very juicy and sweet. The tree in bush form makes a dwarf growth, but our best fruits are obtained from walls. Here we lay in new wood freely every year, and the trees bear very well indeed. I have gathered this fruit earlier than July 25, but even that is early for fruits of this kind. It is a reddish purple and roundish, and is both useful for dessert and cooking. In small gardens where there is not room for many kinds of fruit I would certainly advise this one on account of its earliness and sure cropping. The next on my list is Early Favourite, another of Messrs. Rivers' seedlings, and this variety is not so much grown as the Early Rivers', or, as it is more commonly known, Rivers' Prolific. I have seen the Favourite grown under the name of Prolific, but there is a good deal of difference in the quality of the fruits, and Favourite is the earliest. There was a good tree of this variety on a west wall in the Royal Horticultural Society's gardens at Chiswick, and it was always admired for its good quality and earliness. This is a true dessert Plum, whereas Prolific is a kitchen fruit. This variety does best on a wall, and grown thus I have had ripe fruits by the middle of July. I do not advise it as a bush or standard, but grown on a low wall it is excellent and does not make a rank growth. The fruit is a roundish-oval of medium size, purple, and has a refreshing flavour, a freestone, and a good dessert variety. The next is the Prolific, named above. This is rightly named, as it is a very free bearer and a good bush or dwarf standard. Many give it wall culture for early supplies, but we grow it otherwise. It is a splendid cooking Plum, and, though not large, it is valuable for its free cropping. The fruits are under medium size, and it is excellent for preserving. At times it crops so freely that it is well to gather the fruits daily and as early as possible. Grown in the open we usually get ripe fruits by the end of July, and in quantity the first week in August, but the fruits do not keep long when quite ripe. The above are the three best early Plums we grow, and doubtless in later localities they would be quite as valuable.

Syon.

G. WYTHES.

PEACH WATERLOO.

THIS was our earliest Peach this season, the first fruits ripening on a south wall on the 23rd ult., and since that date we have gathered daily. We have had Waterloo earlier than the date noted above, but this year the trees were much later in setting, which was a gain, as not only is there a

very good crop, but the quality is excellent. Many fruit-lovers prefer an open wall Peach to forced fruit, and one cannot be surprised when the season is favourable, as with well-grown fruits on walls there is the flavour that is wanting in forced fruits. As regards the value of the very early Peaches I do not say they are equal in quality to our mid-season ones, but they are valuable in gardens where Peaches are not forced, and Waterloo is one of the best; it is quite six weeks earlier than Royal George and three weeks before Hale's Early, two of our best wall trees. It is brilliant in colour and of fair quality. For open walls Amsden June is also excellent. This season Waterloo preceded it. Both are valuable July Peaches, and, though the trees are less robust than the later kinds, they always crop well, but should be allowed ample room to extend. Severe pruning does not promote good health, and we find it an advantage to allow the terminals ample space.

S. H. B.

SUMMER PRUNING.

THERE are few operations in relation to fruit culture that are more interesting or present worthier aspects for study than the practice of summer pruning. To very many growers who operate on their trees by shortening back their summer shoots the process is little more than one



FASCIATED STEM OF LILIIUM HANSONII.

of ordinary routine. They seldom ask themselves why the practice is adopted or what is the nature of the physical change which takes place when, by the shortening of a shoot in the late summer, there is a marked difference in the leaf-buds left on the portion of the shoot remaining. Under ordinary conditions did the shoot remain intact until the leaves had fallen every leaf-bud on it would, beyond maturing to enable it to become a wood producer the following year, yet remain practically the same and dormant. But when the shoot is, at the end of July or early in August, shortened back to some four or five leaves, a distinctive change in the back or basal buds begins. The first part of the change is seen in the increase in the size of the leaves attached to the shortened shoot, and these elaborate elements which serve to create from previous mere wood-buds those that will ultimately become fruit-producing buds or spurs. The point bud, however, is as a rule an exception, as that receiving the full flow of sap from the main stem is forced into growth, and that growth will be strong or otherwise according to the period of the summer at which the shortening of the shoot takes place. If done early in July, before the wood has become hardened, very strong new growth will result, and the conversion of the back buds

into fruit-buds is greatly minimised. If the shortening be done some three or four weeks later the wood will have materially hardened, and any second growth resulting will be less strong, and can easily be checked by pinching this new shoot at the second leaf joint. No further growth will then result, and the basal buds will be busy utilising the materialised sap from the leaves in building up fruitful germs. It is possible in this way to entirely change the nature of a tree, which strongly rooted in the soil continues from year to year to produce surplus wood shoots alone and no fruit, into one that creates little superfluous wood and good fruit crops. But this process of conversion is not of a sudden character. It is not the work of one year. The change of wood-buds into fruit-buds is only partially effected the first season, but enough has been done to prevent those buds thus partially converted from again becoming mere wood producers. The following season completes the change, and obscure buds then become prominent fruit-buds or spurs. All the winter pruning in the world will never effect this object, as in such case the base buds left on hard cut back shoots simply produce wood shoots again, and so on indefinitely. Even with the knowledge in relation to fruit culture now prevalent it is as painful as it is surprising to note how many apparently healthy trees continue year after year to be mere wood producers instead of being fruitful. Even root pruning, a very drastic operation for the purpose of checking sap flow from strongly entrenched roots, and thus also checking wood production, is far too little practised. Summer pruning is essentially a much less laborious operation, but is one needing much time. Root pruning is heavy work, and is always, unless done with great care, attended with some risk to the trees. Summer pruning has to be succeeded in the winter by a further operation, when all shortened shoots have to be cut back to two buds, as these are ample to form a spur for fruit production.

A. D.

CORRESPONDENCE.

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

FASCIATED FLOWER OF LILIIUM HANSONII.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Last summer my two bulbs of this useful Lily flowered very satisfactorily, the two spikes bearing respectively sixteen and fourteen blooms; but this year they have done far better, and have quite startled me and my friends by their performances. Five spikes were sent up, four of which were as good as one could wish, bearing as they did eleven, eleven, fourteen, and fifteen blooms; but the fifth, with massive fasciated stem and huge flattened-out head, carried no less than fifty-nine flowers, all perfect. I never saw such a head on any Lily before.

Yalding, Kent.

SAVILLE G. REID.

THINNING FRUIT IN CAPE COLONY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice a letter in your last issue received here (June 11) by "Industria" headed "Fruit in Britain," in which he refers to the question of thinning fruit. He quotes a case in this colony where a very heavy crop in some extensive orchards received their thinning from natural causes and greatly benefited thereby. From this it might appear that thinning was not generally practised here, whereas the contrary is the case. In this and neighbouring districts, where most of the largest orchards of the Western Province are situated, it is the rule and not the exception amongst the English farmers (and I am glad to say that our Dutch neighbours are beginning to follow our example), and, in fact, is looked upon as second only in importance to pruning. Personally I have charge of 15,000 fruit trees, about half of which are in full bearing, and a considerable portion

of the rest cropping. Last season I went over these at least three times and picked off literally tons, and it certainly paid, as small fruit was unsaleable and the jam factories closed down. The varieties operated upon were mostly Plums, Peaches, and Apricots, and to a smaller extent Pears and Apples. For most of the trees ladders had to be used. Wages are, I believe, as high or higher than at home. We pay 2s. 9d. and 3s., and even 3s. 6d. a day for coloured labour, which has to be most carefully supervised.

There would, no doubt, be great difficulty in thinning the old orchards like the Kentish Cherry orchards with their "forest" trees, but in all modern plantations, where presumably the trees are kept low as they are here, it should be a simple matter, and would probably repay growers even better than it does with us, as in the London market, which receives the pick of the world's produce, quality is everything. The wind certainly does a good deal of thinning for us in most seasons, but, unfortunately, it is not sufficiently discriminating to be depended upon. One thing also is certain—that a well-thinned tree suffers less from high winds than one on which heavy clusters of fruit are hanging unevenly over the surface and frequently on the tips of the branches.

LIONEL BAKER.

Weltevreden, Groot Drakenstein, Cape Colony.

WILD FLOWERS AT SPITZBERGEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It may be of interest to some of your readers to know that here in latitude 78° beautiful flowers are plentiful. Apparently all that the plants wait for is the melting of the snow from the lower ground, when immediately, as if by magic, the daily allowance of twenty-four hours bright sunshine and perfect purity of atmosphere brings to visible life the millions of plants which look so dead. At half a mile from the shore the land was like a moor when the Heather is in full bloom, and on landing we found that the colour was given by acres of plants of *Saxifraga oppositifolia*, each plant being a solid mass of bloom. A closer examination showed many other interesting plants in flower, amongst them a very bright *Ranunculus* and other yellow-flowered plants. The dwarf Rushes and Grasses were interesting, as also was the only "tree" on the islands, viz., the "Polar Willow" (probably *Salix reticulata*), the flowers of which were only just showing. The extreme height of this tree was 1 inch! It was fascinating to see what a lovely garden Nature when left entirely alone can make, under conditions that would seem impossible to any human gardener. The plants mentioned, and many others, were growing amongst the brightest coloured masses conceivable, within a stone's throw of glaciers 150 feet in height at the water's edge, and with snow still lying all around, notwithstanding the fact that the summer here is now nearly over. On a very small island in Recherche Bay there were masses of *Dryas octopetala* in full flower, although on what may be called the mainland that plant was only just showing signs of life. Evidently that little island was comparatively warm, and for that reason chosen by the birds for nesting purposes, for there were innumerable nests of the eider duck and other sea fowl amongst the flowers, all giving an additional interest from the point of view of a lover of Nature.

A. KINGSMILL.

THE ALMUG TREE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice that Professor Henslow, in his interesting note on page 73, says that the above tree, frequently mentioned in those portions of the Books of Kings and Chronicles that treat of the reign of Solomon, might possibly be the Yew. He may be right, but I hardly think so. We read that "the navy of Hiram that brought gold from Ophir brought also Almug trees in great abundance." Now it is generally, if not universally, accepted that the Ophir of Scripture was not, as the old commentators put it, in India, but in Eastern Africa, in that part explored some years ago by

Theodore Bent, where traces of the ancient Phœnician workmen were discovered in the old gold workings. If the Yew was there in quantity in those old days it should still exist. Is that so? Again, we also read that of the Almug or Algum trees not only the wood for musical instruments was fashioned, but they furnished material for terraces and pillars. If the latter is to be accepted literally, the trees would not only be of very substantial size at the base, but should have a big stem some 20 feet or 30 feet high, which hardly coincides with our experience of the Yew, but is more in keeping with the growth of the Atlas or Deodar Cedars. I have wondered if the ships skirted the northern coast of Africa and obtained their supplies from the Atlas Mountains. It is a most interesting subject this connexion of the sylva of olden times with ours of to-day, and I for one should be very pleased with further information on the matter. It may be noted that the Deodar Cedar has been suggested as the Almug, but as this is indigenous to Northern India it is hardly possible it could have been shipped in quantity to Palestine in those times.

Claremont.

E. L. BURRELL.

LEAF-CURL IN PEACH TREES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Can you tell me of any cure for leaf-curl in Peach and Nectarine trees? The trees are on a south wall in a midland county, no protection is given, soil rich loam. The disease has only given trouble of late years, but now infects both old and young trees and every kind.

[Blister or leaf-curl on Peach and Nectarine trees is caused by a fungus known as *Exoascus deformans*. Although of an infectious nature, it is powerless against trees growing under glass, even if these were moved from an open wall in the autumn after a bad attack in the spring. Nor are trees so liable to it the first season after they have been transplanted from a house to an open wall as they are in after years. Spraying with strong fungicides is sometimes recommended as a preventive, and if tried this should be done once before the buds burst and again soon after the fruit is set, but more harm than good may result unless the greatest judgment is exercised in the matter. Cold winds are largely responsible for the mischief done, and the best protected trees are the least affected by leaf-curl. Peach walls ought to be furnished with glazed copings and an arrangement of blinds and cords, using these on cold days as well as nights to ward off cutting winds. Thus carefully protected there will be very few blistered leaves, and the trees pay well for the outlay and trouble taken with them. We have a number of young trees in pots for forcing. They are arranged in an exposed position in a large bed, and it is

worthy of note that only the rows of trees on the north and east sides are affected by leaf-curl. All the curled leaves should be kept gathered and destroyed, and the swollen ends of shoots cut away. If this is done in good time, fresh growths develop quickly and mature sufficiently to flower freely the next spring.]

WINTER SPINACH.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This is an important crop in most large gardens; it is also one that repays for any extra labour spent in the preparation of the ground as well as the sowing of the seeds. At this date there are several plots of ground available for this crop, and it may well follow Potatoes, Peas, Broad Beans, or Cauliflower, and in most cases all that is necessary now is to give a moderate dressing of soot or wood ashes, dig it a spade deep, and allowing a few days before forking back. Use wooden rakes to level the ground and collect stones, sticks, &c., and then draw shallow drills with a triangular hoe 15 inches apart. If the ground is very dry at the time of sowing moisten the drills with a long-spouted water-can a few hours before, as Spinach comes through most irregularly, and often fails altogether in very dry weather. Make the ground fairly firm, fill in the drills with the feet, and rake all evenly over, which is all that is necessary until the seedlings appear, when a dusting of fresh slaked lime should be given late in the evening to keep off slugs, which are very partial to Spinach, and quickly clear a few rows if left to themselves. Repeat this as often as found necessary. In thinning the crop allow plenty of space for each plant, 6 inches to 9 inches being none too much, as, should a hard winter set in, the plants, when some distance apart, are better able to withstand such weather than crowded weakly plants would be. As regards varieties, I have found the round or summer variety to stand the winter quite as well as the Prickly, but the Long Standing Prickly is decidedly an improvement on the type, and should be given a trial. Two or three sowings should be made, the first one about August 12 or 14, the second ten days later, and a third sowing the first week in September, the intervening sowing usually turning out the best.

Bicton, Devon.

JAMES MAYNE.

CARNATIONS IN A LEWES GARDEN.

THE accompanying illustration shows a very fine collection of Carnations grown by Miss Shiffner in the garden of Coombe, Lewes. It includes all the best varieties in cultivation, and the plants are in excellent condition. One large house is devoted



CARNATIONS IN A LEWES GARDEN.

to their growth, and many plants are in the open. The following varieties are amongst those grown: Lady Hermione, Mrs. Nicholson, Copperhead, Ivo Sebright, Mrs. Guy Sebright, Herbert J. Cutbush, Cecilia, Sir Bevys, Daniel Defoe, Agnes Sorrel, Miss Shiffner, Midas, Bomba, Mrs. W. Lawson, and many others. The challenge cup in the group was presented by Mr. J. Colman last year and won for the first time by Miss Shiffner. It was given for the best group of cut blooms arranged on a 4 feet square table at the Brighton summer show. Miss Shiffner also has a house of Malmaisons, and has bought the entire stock of a yellow one raised by Messrs. Low, which she hopes to bring out next year.

SOCIETIES.

THE MIDLAND CARNATION AND PICOTEE SOCIETY. The annual exhibition of this society was held, as usual, in the Show House of the Botanical Gardens, Edgbaston, Birmingham, on the 4th and 5th inst. No more suitable place for such a show can be found in the county of Warwick; there is abundance of light, overhead are the festoons formed by *Bougainvillea glabra* or *Lapagerias*, round the sides *Fuchsias* and other plants form a background to the flowers, the tables are narrow, and there is no waste of space as at the Drill Hall. The arrangements made by Mr. Thomas Humphreys, the curator of the gardens, were excellent and much appreciated. Carnations and Picotees shown on paper collars were superb, with the one exception of the selfs, which through flowering early were a little thin and undersized. The bizarre and flaked Carnations and the white ground Picotees were excellent, pure in the ground, stout in texture, perfect in form, and finely marked. The yellow grounds and fancies were also very fine indeed, and a large number of single blooms were staged.

Carnations, selfs.—The best twelve blooms came from Mr. R. C. Cartwright, King's Norton, who had bright flowers of Her Grace, Carabas, Seagull, Enchantress (a very fine rose self), Benbow, Mrs. Guy Sebright, Sir Bevys, Germania, Ensign, Cassandra, Barras, and Comet. Mr. A. B. Brown, Handsworth, who had John Pope (a very fine new rose self), Avalanche, Mrs. E. Hambro, Gloriosa (a very fine blush variety), Sappho, &c., was second; and Mr. C. H. Herbert, Acnck's Green, was third. There were nine competitors with six selfs, Mr. W. H. Parton, King's Heath, taking the first prize with W. H. Parton (a very fine and new rich maroon flower), Seagull, Benbow, Sappho, Mrs. E. Hambro, and Germania. The Rev. C. A. Gottwaltz, Droitwich, came second, having John Pope, one of his own raising, very fine; third, Mr. W. H. Twist, Yardley.

Picotees, yellow grounds.—These were very finely shown, Mr. A. W. Jones, Stechford, taking the first prize with Lady St. Oswald, Isolt, Gronow, Lucy Glitters, Mrs. W. Heriot, Chryseis, Coquette, Peri, Countess Verulam, Lord Napier, Gertrude, and Dalkeith, an excellent selection; Mr. C. F. Thurstan came second, also with very fine blooms; and Mr. C. H. Herbert third. There was a very keen competition with six blooms, Mr. W. H. Twist taking the first prize with Gronow, Alcious, Lady St. Oswald, Daniel Defoe, Countess Verulam, and Gertrude; Mr. W. H. Parton was a close second; and Mr. J. Mitchell, Walsall, third.

Fancy Carnations.—Splendid blooms of these were shown, Mr. R. C. Cartwright taking the first prize with twelve blooms, Voltaire, Professor Conper, Ormonde, Queen Bess, Amphion, Galileo, Hidalgo, Emperor, Persens, Canatrice, and Ivo Sebright, another fine selection; Mr. A. W. Jones was placed second with flowers scarcely inferior to the foregoing; and Mr. A. R. Brown was third. There was a very keen competition also with six blooms, much the same varieties being exhibited.

Picotees, white grounds.—Better flowers had not been seen for years; the quality was very fine. Mr. F. W. Goodfellow, Walsall, was first with superb blooms, among which were red edges, Brunette, John Smith, and Thos. William; purple edges, Ganymede, Fanny Tett, Lavinia, Mrs. Openshaw, and Pride of Leyton; rose edges, Favourite, Mrs. Payne, Mrs. Sharpe, and W. H. Johnson; Messrs. Pemberton and Son, Walsall, were second; and Mr. A. R. Brown third. With six blooms Mr. J. Edwards, Manchester, was first with purple edges, Ganymede, Fanny Tett, Lavinia, Mrs. Beswick, and Mrs. Openshaw; and rose edge, Lady Louisa; Mr. W. H. Twist was second, also with very good blooms.

Carnations, flakes and bizarres.—These were very pure and finely marked. The best twelve came from Messrs. Pemberton and Son, who had of scarlet bizarres Robert Houlgrave and Robert Lord; crimson bizarre, J. S. Hedderly; pink and purple bizarres, Geo. Rudd, Sarah Payne, and William Skirving; purple flakes, Gordon Lewis and Geo. Melville; scarlet flakes, Flamingo and Sportsman; rose flakes, Merton and Thalia. Mr. C. H. Herbert was a close second, and Mr. C. F. Thurstan third. With six blooms Mr. J. Edwards was placed first, having varieties already named, and Mr. E. C. Rossiter came second.

Single blooms.—This part of the show is always one of great interest, five prizes being offered for the best flowers in each section. We will content ourselves with naming the three best, though in some cases one variety took two and sometimes three prizes. Scarlet bizarres: Admiral Onzou, which has been in commerce more than fifty years; Robert Houlgrave was second and third. Crimson bizarres: Arthur, a very fine new variety, J. S. Hedderly, and J. D. Hextall; pink and purple bizarres, William Skirving with Geo. Rudd second and third. Scarlet flakes: Guardsman first and second, Sportsman third. Purple flakes: Gordon Lewis was

placed first, second, and third. Rose flakes: Rob Roy, Mrs. Lord, and Mrs. Rowan.

Picotees, heavy red edge.—John Smith, Brunette, second and third. Light, red edge: Thos. William, first, second, and third. Heavy purple edge: Mrs. Openshaw, first and third, Fanny Tett second. Light purple edge: Pride of Leyton, first and second, Lavinia third. Heavy rose edge: Mrs. Payne, Aprie, Lady Louisa. Heavy scarlet edge: Mrs. Holden, W. H. Johnson, second and third. Light rose edge: Favourite, first and second, Nellie third. Yellow Picotee, light edged: Pilgrim, first and third, Lord Napier second. Y.P. heavy edge: Lucy Glitters, Isolt, and John Whitham. Fancy yellow ground: Queen Bess, Monsrch, Hidalgo. Fancy any type: Ivo Sebright, first and third, Millie second. Carnations (Selfs), white: Mrs. Eric Hambro, first and second, Much the Miller third. Blush Seagull, first and second, Blushing Bride third. Yellow Germania first, second, and third. Buff: Mrs. R. C. Cartwright, first and second, this is a fine new variety of a salmon buff colour; Benbow second. Rose: John Pope, a fine new flower, Carabas second and third. Scarlet: G. W. Crane, Isinglass second and third. Dark crimson and maroon: W. H. P., a very fine maroon-crimson flower, first, second, and third. Purple Cassandra, Richard Dean, new dark purple Jupiter, any other dark self: Jocelyn, first and third, Lady Jane Grey second, both of heliotrope shades.

Undressed flowers.—This term is scarcely correct, as the schedule sets forth that "although a little dressing of the petals will be admitted, as little dressing as possible is desirable, the object of this class being to stage the flowers as naturally grown, apart from a petal shifted here and there where it improves the beauty of the flower." Complaint was made by the judges that this limitation had been exceeded, and the calyx manipulated. Of course the difficulty lies in accurately defining the exact amount of dressing permitted and no more. In four classes the blooms were staged singly in small vases, and in eight other classes they were in threes. Mr. Cartwright had the best twelve selfs, Mr. A. R. Brown was second; Mr. W. H. Parton had the best six, the Rev. C. A. Gottwaltz being second; Mr. A. W. Jones had the best twelve fancies, Mr. C. H. Herbert being second; Mr. Parton was again first with six, and Mr. Twist second. The varieties shown in the foregoing classes were substantially the same as those already named, and the same remark applies to the classes in which three blooms were shown. The best twelve blooms of selfs, yellow grounds, and fancies came from Mr. A. W. Jones, Mr. A. R. Brown being second; while Mr. Parton had the best six varieties, Mr. A. Chatwin being second. The remaining six classes were for three blooms only of one variety, and in each of these there was a good competition.

Premier blooms.—The selection of these entails upon the judges a large amount of labour, their selections being as follows: Bizarre Carnation, C. B. Arthur, from Mr. R. Sydenham; flake, P. F. Gordon Lewis, from Mr. E. C. Rossiter; Picotee, white ground heavy edge, P. E. Mrs. Openshaw, from Mr. Goodfellow; white ground, light edge, red edge Thos. William, from Messrs. Pemberton and Son; yellow ground, heavy edge, Dalkeith, from Mr. A. W. Jones; yellow ground, light edge, Child Harold, from Mr. W. H. Parton; fancy, yellow ground, Queen Bess, from Mr. A. W. Jones; self, W. H. Parton, from Mr. R. Sydenham. Three premiers were selected from the undressed flowers: Self, Much the Miller, from Mr. T. R. Ward; yellow ground Picotee, Mrs. W. Heriot, from Mr. A. W. Jones; and fancy, Henry Gough, from Mr. A. R. Brown.

Floral decorations took the form of arrangements with Sweet Peas on small tables, some pretty designs being set up, especially that from Mrs. Martin, which was awarded the first prize; and there were shower bouquets, sprays, and button holes. Mr. Robert Sydenham offered special prizes for twelve bunches of Sweet Peas. Mr. T. Jones, Ruabon, taking the first prize with some of the finest blooms we have seen this season.

Several miscellaneous collections were staged. Messrs. Gunn and Sons, Otton, had a fine bank of cut flowers (silver-gilt medal); Messrs. Hewitt and Co., Solihull, had the same, and an attractive collection of Carnations in vases (silver-gilt medal); Mr. W. A. Watts, St. Asaph, had a fine display of long stemmed Carnations set up in vases (large silver medal); Messrs. B. R. Davis and Son, Yeovil, had very fine Begonias (large silver medal); Mr. M. Pritchard, Christchurch, had an excellent collection of hardy flowers (large silver medal); Messrs. Dicksons, Chester, had the same very tastefully arranged (large silver medal); Mr. J. Lambert, Southport, had a very pretty collection of cut Carnations (silver medal); Mr. S. Mortimer, Farnham, had an artistic arrangement with Cactus Dahlias (silver medal); Mr. G. H. White, Worcester, had a bank of hardy flowers (silver medal); Mr. V. Slade, Taunton, a fine collection of cut zonal Pelargoniums (silver medal); and there were a few smaller collections.

LEICESTER, ABBEY PARK.

This exhibition is quite unique in its way, as it is in the hands of the Corporation, and managed by a committee of aldermen and councillors. There is no membership or subscription list, but *pro rata* entrance fees are paid by all exhibitors. The expenses of the show are defrayed from these, and the takings at the gates and any surplus goes to the parks committee. The show was held in the Abbey Park on the 2nd and 3rd inst. The secretaryship is held by Mr. J. Burton, the superintendent of the Abbey Park, and he is also the manager of the show.

Plants were represented by stove and greenhouse specimens, Ferns, &c., but they are not a strong point at Leicester, but groups arranged for effect are a prime feature, Mr. James Cypher of Cheltenham putting up one of his elaborate arrangements and taking the first prize; Mr. W. Vause, Leamington, was second.

Cut flowers largely preponderate, and there are keen florists among the Leicester folk. Excellent Roses for the time of year were shown by Messrs. A. Dickson and Sons, Newtownards, Belfast, who were first with thirty-six blooms,

with twenty-four, and also with twelve Teas and Noisettes; Mr. H. Drew, Longworth, a new aspirant to trade honours, taking most of the second prizes. The best twelve blooms of one variety of Hybrid Perpetuals, the Irish firm were first with Frau Karl Druschki; Mr. Drew coming second with Mrs. J. Laing; and these exhibitors were similarly placed with twelve Teas one variety. Messrs. Dickson having Lady Roberts; and Mr. Drew White Maman Cochet. The best Rose in the open classes was Star of Waltham, shown by Messrs. Dickson and Son. In the amateur division for Roses, the principal prizes fell to the lot of the Rev. J. H. Pemberton and Mr. Whittle.

Carnations and Picotees were a good feature. In the open division Mr. R. C. Cartwright of King's Norton and Mr. A. R. Brown, Handsworth, won the leading prizes, showing very good blooms indeed. In the amateurs' division there was a very keen competition, excellent blooms being grown in and about Leicester.

Stove and greenhouse cut flowers were well shown, and bunches of hardy flowers, zonal Pelargoniums, annuals, &c., were also good. Floral decorations consisted of bouquets, baskets of flowers (these were a very fine feature indeed), buttonholes, and sprays. In the amateurs' division there was a large display, and generally of good quality. The cottagers' tent was a flower show in itself, plants, cut flowers, fruits, and vegetables being very good.

Fruit was a fine feature, and in both classes for eight dishes Mr. J. H. Goodacre, Elvaston Castle Gardens, was first, one collection having a Pine-apple; in the other it was not allowed. Very fine Madresfield Court, Black Hamburgh, and Muscat of Alexandria Grapes were staged, also excellent Peaches, Nectarines, Plums, &c. Mr. J. Read, Breyby Gardens, was second in one class; and Mr. J. Brown, Market Rasen, in another. Mr. Goodacre's first prize four bunches of Grapes were Madresfield Court, Black Hamburgh, Gros Maroc, and Muscat of Alexandria. Mr. J. Swansweek was second, having distinct from the foregoing Muscat Hamburgh and Duke of Buccleuch. Mr. Goodacre was first with two bunches of Black Hamburgh and two of Muscat of Alexandria; and with two of Madresfield Court he was also first with two bunches of any other white. Mr. Brown was first with Foster's Seedling in the class for any other white. Peaches, Nectarines, and the commoner fruits were well shown. Vegetables were finely shown in many classes.

Miscellaneous exhibits were numerous and good. Gold medals were awarded to Mrs. Carnall, Messrs. Mackinnon, Fulton, F. Bonnskill, W. Bentley, and Dobbie and Co. Silver medals: Messrs. W. J. Barrow, C. Warner, Harrison and Son, C. Holden, Clibran and Son, W. L. Pattison, A. Day, F. M. Bradley, and W. J. Brown, all for varied and interesting contributions.

NEWBURY HORTICULTURAL SOCIETY.

This society held its fifty-sixth annual show on the 1st inst., and it was a great success in every way, there being a much better gate, more entries in the classes for fruit and cut flowers, and greater all round excellence; indeed, the committee who worked so hard to make it so great a success well deserve the good results for their labours.

The large plant class only brought forth two good collections, one in bloom and the other foliage, the first named being staged by Mr. Surman, Donnington Grove Gardens, and the latter by that veteran exhibitor, Mr. Charles Ross, Welford Park. These two exhibitors, in their respective classes, also being first for the best specimen plant in bloom and the best foliage plant.

Fuchsias made a grand show, though we have seen larger plants, but not better than the first lot, which came from Mr. T. Surman, Mr. Glox second. *Begonias* were numerous, both single and double, and in each class Messrs. Clark, J. H. Hobson, and Surman were the successful exhibitors in the order named. *Gloxinias* formed a large class, and the plants staged were above the average. Messrs. C. Surman, C. Ross, and T. Surman being the leading exhibitors. For table plants Messrs. Zeith, Ross, and J. Howard received the awards in the order named. At this show a special feature is made of the groups arranged as a model conservatory decoration, the awards being given for the most artistic display. There was no lack of exhibitors, the premier award being secured by Mr. J. Howard, Benham Park Gardens, with a splendid lot of plants in bloom and nicely shaped, so that the effect was very pleasing. Mr. C. Ross was a close second, but here a much greater use was made of foliage plants. Roses, though fully late for them, owing to the heat, were well staged in the open class, Messrs. George Cooling and Son, Bath, was first, and Mr. J. R. Tranter, Henley, second, the prizes in the amateur classes going to Lady Sutton and Mr. H. Smith.

Table decorations, always a great feature at Newbury, lost no ground, as, though there was a little less space occupied, the quality was superior. The arrangements were better. Mrs. C. Stradling was a good first, using Sweet Peas, and Miss L. Harold second. There were some good bouquets and buttonholes in the ladies' classes. Sweet Peas in the open class were not plentiful, Messrs. Smith and Surman being the leading exhibitors. Dahlias made a fine exhibit. Mr. Tranter was an easy first with splendid doubles, Messrs. Bosley, Maher, and Filewood taking the remaining awards in the order named. Carnations also were equally fine and well staged, Mr. A. Galt, Aldermaston Court Gardens, being an easy first, and Mr. Ross second. There was a spirited competition for twenty-four bunches of cut flowers, and some were staged loose in glasses, but those in bunches, though less artistic, were of excellent quality, and Mr. H. Smith was first. A special award was given for some choice blooms to Mr. Zeith, Bearrepaire Park Gardens, this collection being much admired.

Fruit was excellent in nearly all the classes; for a collection Mr. J. Howard was first, having good Grapes, Nectarines, and Moor Park Apriots; Mr. Maher, Yattendon Court Gardens, being second. Mr. Howard had the only Pine-apple and the best black Grapes; Messrs. Maher and Surman being second and third. Messrs. T. Surman the best Black Hamburgh, and Mr. Galt staged splendid Muscats.

Messrs. Ross and Galt had the best dessert Apples, and Messrs. Ross, Galt, and Bosley the best cooking.

Vegetables made a splendid display. These were very numerous. The cottagers' classes also were very fine. For a collection for Messrs. Sutton's prize there were five competitors, Mr. Howard being a good first and Mr. T. Surman (Donnington) second for the open class. Messrs. Keep (Aldermaston), Mara, and C. Surman were the leading exhibitors. The attendance was very large, the show being held in Goldwell Park, an ideal spot, and in addition to the horticultural display there were other attractions.

ROYAL HORTICULTURAL SOCIETY. ORCHID COMMITTEE.

PRESENT: Mr. H. J. Veitch (chairman), Messrs. J. O'Brien, W. H. Young, H. Little, H. M. Pollett, de B. Crawshaw, W. Boxall, F. W. Moore, M. Gleason, T. W. Bond, J. Douglas, W. Cobb, J. G. Fowler, H. Ballantyne, H. Tracey, and F. Wellesley.

There was but little work for this committee. Mr. H. Wellesley, Westfield, Woking, submitted *Cattleya Eldorado crocata* superba, bluish mauve, orange lip; *Cattleya Patrocinii*, Westfield var., purple, regularly spotted with a deeper shade, and *Cypripedium Heiro Edenside* var., a well-marked form.

From Mr. F. W. Moore, Royal Botanic Gardens, Glasnevin, *Bulbophyllum Hamelini* (from Madagascar), a dense spike of small flowers with an offensive odour. Botanical certificate. A most interesting species.

Messrs. Sander, St. Albans, staged a good group in which the *Cypripedium* were an interesting feature. C. Lord Derby, C. horneyanum, C. Transvaal, C. rothschildianum, C. Haynaldo chamberlainianum, C. A. de Laisse, and others very pretty. A large plant of *Vanda Lowi*, carrying four long racemes, each with about two dozen blooms, was conspicuous, also *Angraecum eichlerianum*, *Cattleyas*, *Laelio-Cattleyas*, and others. Silver Flora medal.

Messrs. Charlesworth and Co., Bradford, had a very pretty group of choice things, including *Brasso-Cattleya gigas digbyana*, *Laelio-Cattleya Callistoglossa*, rich in colour; *Cattleya Iris*, *Brassia lawrenciana*, *Epidendrum aromaticum*, very sweet; *Cynochloa chlorochilon*, *Laelia Zanthina*, *Vanda coccinea* in fine condition, and other fine plants. Silver Flora medal.

Messrs. Thomas Cripps and Son, Tunbridge Wells, showed a large group of *Disa grandiflora*, varying in colour a little but all in splendid condition. Silver Banksian medal.

Messrs. J. Veitch and Sons, Chelsea, had an excellent group of *Cattleyas* and *Laelio-Cattleyas*. Silver Banksian medal.

Messrs. H. Low and Co., also had a small miscellaneous group, including some very fine *Cypripediums*, *Laelias*, and others.

FRUIT COMMITTEE.

Present: Mr. A. H. Pearson (chairman), Messrs. J. Cheal, A. Dean, H. Parr, L. Castle, H. Wright, O. Thomas, F. Q. Lane, C. Norman, Alfred Rivers, C. Mortimer, G. Kelf, and W. Poupert.

The most important exhibit came from Mr. C. Poster, University College, Reading, who filled a 50-foot length of table with a fine collection of vegetables and some fruit. Good samples of about twenty sorts of Potatoes were shown; of Carrots, Early Gem and New Red Intermediate were good; Onions Bedfordshire Champion, Crimson Globe (highly coloured), and Ailsa Craig; of Runner Beans, good samples of Hill's Prize and Best of All, the last named a very fine Bean, Canadian Wonder being also good; Cauliflower Magnum Bonum, and Beetroot Long and Round were good. Several good sorts of Tomatoes were shown, viz., Polegate, Winter Beauty Champion, and Holmes' Supreme, also the pale pink Peachblow; Cucumbers in several sorts, all good fruits; Melons included Ringleader, Sutton's Scarlet, and others; Nectarines, the Japanese Wineberry, and other fruits, the whole forming a most interesting exhibit, for which a silver Knightian medal was awarded.

Mr. G. Kelf, gardener to Miss Adamson, Regent's Park, N.W., showed a collection of about ten sorts of Plums, viz., Golden Gage, Kirke's, Early Transparent Gage, Emperor, and others, all well-ripened clean fruits. Silver Banksian medal.

Mr. W. A. Cook, Shirley Park, Croydon, showed a seedling Tomato of good shape and substance, of the colour of Peachblow, and ripe fruits from the open of Amsden June Peach.

Mr. H. Parr, Trent Park, New Barnet, submitted Melon Trent Park to the committee, but failed to gain an award; also six large Tomatoes, which weighed 5lb., and said to be a very heavy cropper.

Mr. C. T. Elliott, gardener to Sir A. K. B. Osborn, Bart., had good samples of Apple Mr. Gladstone. Mr. W. Roupell, Harvey Lodge, Roupell Park, also showed good samples of the same variety.

Messrs. Rivers and Son, Sawbridgeworth, showed Plum Golden Gage and their new Peach Peregrine, represented by fine, well-ripened fruits.

From the Royal Horticultural Society's Gardens, Wisley, a most prolific small red Plum was sent, the branches shown being loaded with fruit.

Mr. J. Hodges, the Rusper Vineries, Faygate, had well-finished examples of Grapes Gros Maroc and Alicante.

Mr. F. G. Crampton, Gate House, Sissinghurst, showed Potato Southern Star, a clean, well-shaped kidney variety.

No certificates were given by the fruit and vegetable committee.

FLORAL COMMITTEE.

Present: Mr. H. May (chairman), Messrs. C. T. Drury, R. Dean, C. Bick, James Walker, E. C. Notcutt, C. J. Salter, Charles Jeffries, George Gordon, Amos Perry, Charles Dixon, W. Howe, J. Jennings, C. E. Pearson, H. J. Jones, W. P. Thomson, E. H. Jenkins, W. J. James, Charles E. Shea, and William Cuthbertson.

A group of *Brainea insignis* from Messrs. J. Hill and Son, Lower Edmonton, was very pleasing. Graceful in its spreading habit, the young fronds of a bronzy hue, the three dozen

or so plants forming the group created a distinctly good effect. The species is from Hong Kong and the Kasir Hill district of India, though rarely sent from the latter. Supported by *Davallia platyphylla* in the background and smaller Ferns as a groundwork a good result was obtained generally. Silver Banksian medal.

Hardy flowers as Phloxes, Lilies, Sunflowers, perennial Marguerites, and other such things formed the exhibit of Messrs. William Cutbush and Sons, Highgate, N. Such Phloxes as *Fiancée*, white; *Roi des Blanchés*, white; *Iris*, violet-purple; *Comedia*, lilac and white; Mrs. E. H. Jenkins, one of the finest of the white decorative Phloxes, with coccinea and Coquelicot among the crimson-scarlet sorts were among the best.

Messrs. William Bull and Son, Chelsea, had a group of Tree Ferns, *Dicksonias* and *Cyatheas* principally. Of the former, *D. glauca*, with the rolled-up pinnæ of the young fronds very prominent; *D. antarctica* was represented by a fine pair; while *Cyathea medularis* and *C. dealbata* were both of fine stature. The larger plant of *Cyathea medularis* had a trunk of at least 9 feet. Silver Banksian medal.

The group of *Lilium speciosum* in variety from Messrs. R. and G. Cuthbert was a very fine feature, the white form largely predominating, and all with 4 feet to 5 feet stems, and often ten or a dozen flowers. Handsome heads of *Phlox Fiancee*, with *Lilium longiflorum* and Ferns occupied the groundwork, and formed a margin to the whole. Silver Banksian medal.

Messrs. J. Cheal and Sons, Crawley, contributed hardy flowers, as Phloxes, Sunflowers, Eryngiums, *Montbretias*, and the like in company with *Dahlias* of the Cactus type, &c. Some charming sprays of *Tamarix odessana* were also noted.

Mr. M. Prichard, Christchurch, Hants, in an interesting lot of hardy things included *Sedum pulchellum*, *Veronica longifolia rosea*, *Scabiosa caucasica alba* (very fine), and *Rudbeckia purpurea*.

A pretty lot of *Montbretias*, of which *Flair Jaune* (yellow) and *Germania* were good, *Rudbeckia Golden Glow*, *Helenium grandicephalum striatum*, *Clematis coccinea*, many *Gladioli*, *Hemerocallis Dr. Regel* (an exquisite pale orange), *Senecio Clivorum*, *Onopordion bracteatum* (a tall, Thistle-like plant), *Solidago Buckleyi* (very dwarf), and *Kniphofia Lemon Queen* (very fine) were among the best in a very nice collection.

Tuberous Begonias were largely shown by Messrs. Veitch and Sons, Limited, Chelsea. Those of the ornamental-leaved section were very fine, such as *President Carnot*, *Arthur Mallet*, and *Isabella Bellon*. *Begonia Washington*, double crimson, very dwarf and compact, was in flower in good condition, the whole being associated with *Palms*, Ferns, and *Panacrum fragrans*. A pretty lot of annuals were also from Messrs. Veitch, and these included *Brachycome*, *Linaria* of several kinds, *Godetia*, *Calliopsis*, &c. *Buddleia variabilis veitchiana* and *Senecio Clivorum* were also well shown. Silver Banksian medal.

The *Gladioli* from Messrs. Kelway and Son, Langport, filled one of the long central tables, and constituted an especially fine feature. Bold spikes in many colours, together with fine staging, showed to advantage. Some distinct ones are *Bona*, yellow; *Sir W. Scott*, crimson; *Ajax*, rose-salmon, deeper blue; *Arthur Toms*, scarlet, a widely winged form; *Lord Milner*, rosy salmon; *King of Gladioli*, scarlet, extra fine; *Brantford*, salmon, with purple flaked tips; *Empress Frederick*, soft yellow and crimson throat; and *Golden Sceptre*, a very fine yellow. There were many others, probably seedlings, of much merit. Silver-gilt Flora medal.

A collection of cut Phloxes came from Messrs. Gunn and Sons, Olton, Birmingham. Many sorts were shown representative of the best known kinds in general cultivation.

Phloxes and other hardy flowers came from Messrs. Barr and Sons, Ditton. *Phlox Mrs. Jenkins* and *Fille d'Ève* were fine white varieties. *Spigelia marilandica* is not often seen in such good condition. Hardy Water Lilies were plentiful, and among other things we noted *Gladioli*, *Delphiniums*, &c. *Gladioli dracocephalum* is a bronzy spotted and flaked sort on a yellow buff ground. It is a very striking plant with freely branching spikes.

Sweet Peas were finely shown by Messrs. Dobbie and Co., Rothesay, about a dozen excellent vases being staged. *America*, Duke of Westminster, Countess Spencer (pink), *Pink Friar*, Countess of Radnor, *Stella Morse* (yellow), *Queen Victoria* (soft yellow), *King Edward VII.* (rich carmine-red), and *Jeanie Gordon* (peach and cream) were of the best. These were from the Bute nurseries. A vase of pods was shown from the Essex seed farms, showing how late the Scottish flowers are compared with the northern, a very interesting point to observe. Silver Flora medal.

Mr. Mortimer, Farnham, Surrey, had a most tastefully arranged exhibit of *Dahlias*, Cactuses and show kinds, in vases and on boards, the former rendered attractive by a free intermingling of *Gypsophila paniculata*. Many sorts were not fully open. There were also many seedlings in the group, some of much promise, and, considering the dry weather, the flowers generally were of excellent quality. Silver Flora medal.

Mr. Amos Perry, Winchmore Hill, had a most extensive exhibit of hardy flowers in excellent condition. *Helenium pumilum magnificum*, *Pentstemons*, *Veronica bachelensis*, *Campanula (Platyodon) grandiflorum*, *Helianthus Golden Ball*, *Polygonum baldschuanicum*, *Phloxes*, *Aster Thomsoni*, *Asclepias tuberosa* (very fine), *Eupatorium cannabinum*, *Potentilla nepalensis*, *Catananches*, &c., were all in imposing masses. Hardy Water Lilies also were shown in great abundance.

Border Carnations were shown by Mr. Douglas and Mr. Martin Smith. These were very fine.

A very beautiful lot of cut *Streptocarpus* came from Lord Aldenham, Elstree (gardener, Mr. Beckett). The flowers were set up in small glasses and were in many varieties, blue, violet, white, pink, rose, and others. Cut *Pentstemons* were also from the same source, and showed a good strain of these useful garden flowers. Silver Banksian medal.

Mr. H. B. May, Edmonton, filled a long table with plants of a hardy and half-hardy character, in which the forms of

Campanula isophylla and their allies were well represented; of these *Campanulas* alone five distinct forms were staged, *C. isophylla* (type); *C. i. gloriosa*, large flower; *C. i. alba*, white; *C. i. Mayii*, probably the best of the coloured forms; and *C. i. superba* a deep blue variety; *C. balchinensis* was also well represented. Silver Banksian medal.

Some good border Carnations came from Mr. H. W. G. Morris, Chipping Norton, Cyril Morris, a good yellow ground fancy; Admiral Togo, yellow ground, with crimson border and flakes; and Roy Morris, a magnificent scarlet of perfect form and colour.

Cactus *Dahlias Fairy*, white; England's Queen, large white; J. B. Ridley, orange and yellow; Ella Kraemas, peach; Goliath, cardinal red; and W. P. Wright, crimson-scarlet, were from Messrs. James Stredwick and Son, St. Leonards-on-Sea.

AWARDS.

Campanula hybrida Isobel.—A showy *Campanula* of the Carpathic section, with a leaning to *C. c. pelviformis*. The colour is deep violet-blue, the broadly open flowers of good substance. The plant as shown is 9 inches high, and very free flowering. From Mr. M. Prichard, Christchurch, Hants. Award of merit.

Begonia Washington.—A double flowered kind with crimson-scarlet flowers on quite short stalks, and not more than 9 inches high. The plants were full of flowers. In all probability the variety will bed out with good results. Exhibited by Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

Gladiolus Valdora.—A large and handsome sort with spreading flowers, white suffused and flaked red and pink, the lower petal pink, tipped with yellow in the throat, and freckled with scarlet. From Messrs. Kelway and Son, Langport, Somerset. Award of merit.

Gladiolus Miss Zena Dare.—Creamy white, the lower petals lemon yellow, and distinctly lined with red, the same colour pervading the base of the flower. From Messrs. Kelway and Son. Award of merit.

Dahlia Radium (Cactus).—A very finely-formed flower of orange and fawn with yellow centre. The florets are prettily curved and fluted. From Messrs. James Stredwick and Son, St. Leonards-on-Sea. Award of merit.

OBITUARY.

MR. RICHARD GORTON.

NORTHERN and Midland florists are mourning the death of this gentleman, who ably represented the older school of florists in Lancashire. Few men knew the points of a flower better, and he warmly insisted upon their observance. Of late years the alpine *Auricula* was his special favourite, and he raised some highly-refined varieties. He attended the exhibitions of florists' flowers, and especially those of the northern section of the National *Auricula* Society. He had outlived most of his floricultural contemporaries in Manchester. He was attached to outdoor sports, and was one of the original members of the Lancashire County Cricket Club. Mr. Gorton died at his residence, The Woodlands, Eccles, on the 2nd inst., aged seventy-two years.

MRS. WILLIAM RICHARDSON.

THE death of the wife of Mr. William Richardson, the well-known foreman at the Hassock's Nursery of Messrs. W. Balchin and Son, took place on the 2nd inst., after a short illness, at the age of forty years, leaving a young son. Those who have from time to time enjoyed her kind hospitality will, with her bereaved husband, mourn her loss.

MR. JOHN HINDE NEWBERRY.

It is with deep regret we record the death of Mr. John Hinde Newberry, which took place very suddenly on Thursday, the 4th inst., in his sixty-fourth year. Ten days previously he had been under an operation which had apparently been most successful. Only the night before his death he was most cheerful and looking forward to resume his duties at an early date, but a very sudden relapse took place, from which he never recovered. For over forty-five years he had been in the employ of Messrs. Hugh Low and Co., formerly at the Clapton Nursery, and recently at Bush Hill Park Nurseries, Enfield. Few of the horticultural trade are unacquainted with his well-known handwriting, and most visitors to the nurseries during the past forty years have come into personal contact with him. He came to Clapton in 1859 from Upwey, Dorchester, where his father carried on a nursery, and John Hinde was not only a most excellent correspondent book-keeper, but a thoroughly practical man, few being able to handle spade or knife better. He was

interred at Edmonton Cemetery on Saturday, the 6th inst., a good many of the old Clapton and Bush Hill friends attending the funeral. He leaves four sons and three daughters and a large circle of friends to mourn his loss, his wife having died two years and a-half since.

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.—W. A. G.—Yes, *Trachelium caeruleum*.—J. A.—1, *Carduus heterophyllus*; 2, *Campanula rapunculoides*; 3, *C. michauxioides*; 4, *C. Trachelium*.
Vanda caerulea (H. W. SIMS).—The specific name of this Orchid would imply that the flowers are sky blue, and of some varieties this is a true description, but there are many plants of the species in cultivation not deserving the name, the blossoms being nearly white. Unfortunately, the deeper coloured forms are not usually so vigorous as the lighter ones. Although this Orchid is now common in collections, those who have acquired good deep-coloured forms should be careful of them. Cool treatment has been advised for this species, but we have always had better results by keeping the plants in the cool end of the Cattleya house in a light, airy position. Like the majority of the genus, this *Vanda* must have abundant rooting space, but the compost must be sweet and open, fresh sphagnum, a little peat fibre, and plenty of charcoal being the most suitable material. It requires copious supplies of water at the roots while growing, but during the winter very little will suffice.

The Celery maggot (W. H. D.).—This is the season at which the Celery maggot is often most troublesome. Light sprinklings broadcast of soot and wood ashes over the foliage may prevent the fly from striking it, but when once this has occurred and the maggot is present, nothing short of actual hand-picking will free the plants, as the pest is located between the tissues of the leaf, where no insecticides save those which would permanently cripple the growth will reach it. The plants should be regularly watched, and if any traces of the insect are seen, hand-picking should be immediately and carefully performed. Sometimes a second attack is not made, but should this be the case, the picking must be again resumed.

Lancashire Gooseberries (A. J. K.).—There used to be a prejudice against what are termed Lancashire Gooseberries, but a better acquaintance with them and a fuller knowledge of their good qualities when well ripened in the sunshine have caused a demand for them to spring up that is likely to grow. Many of the big Gooseberries when well ripened are superior in flavour to the little berries thought so much of in the past, but we need not dwell on this, as these Gooseberries will find their way into every garden. The Gooseberry is an English fruit, and it is one specially suited to the climate. The foreigner cannot compete with us in the production of Gooseberries, and we should think in a very full season Gooseberries might be exported (probably they are) to some of the countries where the climate is not so suitable. At any rate, there is sure to be a demand for bushes of the best of the Lancashire sorts. The grower for market relies chiefly upon two sorts—Whitesmith and Crown Bob. There is often a difficulty in getting supplied with these sorts after Christmas, as the demand has been so great. Of late years other sorts have come into competition. Whinham's Industry is thought a good deal of, and Berry's Early Kent has acquired a local reputation that is likely to grow. And we have no doubt as the large Gooseberries become generally grown that there are others which may be grown for profit. The Green and Red London are thought a good deal of, and Speedwell, Ironmonger, and Broom Girl are good flavoured sorts. In making new plantations of Gooseberries, the site must be well prepared. The land must be trenched 2 feet deep at least and be fairly manured, and the sooner this work is done now the better, so that the land may have time to settle and get mellowed by exposure before planting. In a general way Gooseberries are planted too close to each other. If the land is trenched and well prepared, every bush will profitably occupy a space 6 feet square, as where bushes of fruit are wanted the close pruning system had better not be adopted. Keep the growth fairly thin, but leave a good length of the young wood to bear fruit.

Pæonies not flowering (W. D.).—We thank you for your prompt compliance with our suggestion. The plant is obviously quite healthy but weak, and this may be due to one of several causes, primarily, however, to planting at a wrong season, and much weakened material. We imagine there has been neglect to the older plant from whence your present stock was obtained, and if so recovery would be slower than usual. We incline to this view by reason of the number of stems now existing, and half the number would have been more satisfactory and calculated to give an earlier flowering. As, however, it is not unusual for freshly planted Pæonies to take from three to five years to recover and

attain to a good flowering, and as the planting appears well done, we think you had better wait patiently. We hope to deal with the subject more fully shortly.

Grapes unsatisfactory (YANTIE PLACE).—The Grapes sent are badly rusted. This was caused by the sulphur on the tender skin of the berries in their early growth. Sulphur in any form is not safe until the berries are nearly full grown; even then it should be carefully applied. Next season you must thoroughly cleanse both vine and house to get rid of the mildew. Wash and paint pipes, walls, and every part thoroughly, and it would be advisable to start the canes a little later and ventilate most carefully.

A sparrow-trap.—Can you tell me the best sort of sparrow-trap or other means of getting rid of these pests? They have almost entirely driven away the swallow and house-martins that formerly built under the eaves of my house. If you can recommend a good sparrow-trap, would you also tell me the maker to whom I should apply?—F. J. [Unfortunately, there is no really efficient sparrow-trap. Of course there is the common and cruel gin, but one by one catching of these wholesale marauders is of no practical use. Then there is the trap made on the principle of the lobster pot—easy to get into but hard to get out of. As a rule this will catch a few sparrows when it first is set, but soon the clever birds learn that it is dangerous, and decline to have anything to do with it. But a good deal can be made out of the sparrows' predilection for Ivy-covered walls. They roost in numbers in such places, as well as make their nests in them. For catching them at roost the plan is to have a wide net supported by two long poles. Go quietly up to the Ivy where the birds have been observed to roost—of course, after they have settled in at night—then, clapping the net over the Ivy, you have the birds in the net as they try to fly out. In this way you may catch many. Or, again, you may take advantage of the sparrows' propensity to crowd together over a handful of corn. If you throw down a handful of Oats in the yard and station a man with a gun loaded with small shot in an outhouse, he will often get a chance to "pot" a good many at a shot as they cluster round the Oats. But this trick can only be played at the same spot about once in three days, for the birds get very suspicious. The most severe harrying of all may be done in the nesting season. It may be done most effectually, if your heart is hard enough to let you do it, by giving instructions that all sparrows' nests (and the Ivy-covered walls and trees, again, are the great places for them) are to be left until the young birds are nearly ready to fly. If the nests be harried at an early stage it only means that the parents go away and breed somewhere else. It is horrid to have to suggest such slaughter of the innocents; but the innocents, unhappily, grow guilty so soon that one has to take drastic measures. It should always be remembered, after a successful pot shot, or a good bag in the net, that sparrow pie is excellent.]

Plants for a sea marsh.—Could you or any of your readers inform me what, if anything, will grow on a sea marsh? A small river runs through an endless marsh in an estuary near here (South Wales), and the banks look so bare that I first planted Willows and then young Alders, but neither have done any good. The marsh is frequently covered with salt water. Any suggestions will greatly oblige.—G. [The best plant of all for a salt marsh is the Sea Lavender (*Statice Limonium*), which covers large tracts in such places in the east counties. We have seen breadths of it, and the effect of the plants in flower is excellent. It grows with the utmost freedom, and remains in beauty for many weeks. Aster Tripolium the Sea Starwort is another good thing, 2 feet in height. When often covered by sea water it loses the pale lilac ray florets, but the yellow disc florets seem to be enlarged, and the whole plant has a handsome aspect. This should be planted in quite free groups. Its colouring is decided, and not in the least degree harsh. *Artemisia maritima* is a neat whitish plant with finely-divided leaves. *Suaeda frutescens* is a handsome, almost shrubby plant, looking like a prosperous Heath, but it is rather rare. All these are natives of the salt marshes, and thrive with frequent submersion in sea water. The handsome Reed (*Phragmites communis*) also does well in salt ditches. These plants are probably (with the exception of the Sea Lavender) not to be had in nurseries. A stock will have to be specially collected in some of the well-known salt marshes. But there may be some local condition, such as the frequent shifting of layers of mud, that would prevent even these plants thriving, as we do not otherwise understand why some of them at least are not already present.]

A fruit selection.—I much desire a selection of all kinds of fruit—Apples, Pears, bush fruits, &c.—for my garden, and I was strongly advised to write you about the matter. It may be early to ask, but I wish to get the trees in good time. Probably such a selection will be helpful to other readers who may be contemplating planting a fruit garden. I want about half a dozen of each kind of fruit. The soil is good.—B., *Middlesex*. [This letter is very vague, but as our correspondent simply asks for a selection of fruits, we give this, in the hope that it may also be useful to others. Of desert Apples, choose Irish Peach, ripe in August; Ribston Pippin, but do not plant it in wet soils; King of the Pippins, a very free-bearing variety; Cox's Orange Pippin, Cockle Pippin, and Blenheim Orange. Get the trees on the Paradise stock. Of cooking Apples, choose the following trees on same stock: Frogmore Prolific, Warner's King, Lane's Prince Albert, Sandringham, Bramley's Seedling, and Wellington. Dessert Pears: Doyenne d'Été, Williams's Bon Chrétien, Louise Bonne of Jersey, Marie Louise, Doyenne du Comice, Winter Nelis, and Thompson's. All the fruits in this selection ripen in the order named. If you wish for a cooking Pear—we mean for stewing—Catillac is as good as any. Of dessert Plums, Early Favourite, the Greenage, Jefferson, and Coe's Golden Drop are good; and of cooking Plums, Pond's Seedling, Magnum Bonum, and, of course, the free-cropping Victoria. Peaches: Hale's Early, Stirling Castle, Princess of Wales, and Violet Hatve. Nectarines: Early Rivers', Elruze, and Lord Napier. Cherries: Early Rivers', May Duke, Governor Wood, and, of course, Morello on a north wall. Strawberries: Royal Sovereign,

La Grosse Sucrée, and Latest of All. Gooseberries: Warrington, Red Champagne, and Whinham's Industry. Raspberries: Superlative, Yellow Antwerp, and, if you care for yellow-coloured fruits, Belle de Fontenay for autumn fruiting. Currants: Of white, choose White Dutch; of black, Lee's Prolific or Carter's Champion; of red, the Red Dutch and La Constaute. We have given you a restricted list; of course, it may be considerably extended if so desired, but we strongly advise you not to have too many kinds. Remember also how important it is to find out the kinds that succeed well in the neighbourhood. If, for example, Wellington Apple is generally a success in your district, make a note of it, and any varieties that have proved failures reject. In this way you profit by the experience of others.]

Pond foul (S.).—It is not easy to answer this question without knowing something of the size of the pond and the nature of the fouling. We do not think it likely that chalking the floor of the pond would have much effect. Liming it well would kill for the time being any germs that were in it, but, of course, the inflowing water would slack the lime, and the foulness would soon cover it again. Nor do we know of any plant that would have the effect desired. If the foulness be caused by inflowing sewage it ought to be possible to deal with this in bacteria tanks before it comes to the pond, and probably this would be a better way than establishing the bacteria in the pond itself. If the pond is small and lends itself to the treatment, it might be useful to restrict its width and depth so as to increase the speed of any stream running through it.

Restoring a bowling-green scorched by Sun (B.).—If, as you say, portions or patches of your green have been so scorched that they are quite decayed, it will be useless to hope that in such places grass will grow again. There is no better remedy than that of tilling these patches and replacing them with fresh turf. But we infer that the patches were so scorched because the soil beneath is in fault—perhaps too shallow and hard, perhaps too poor. Possibly that may be the case with much of your green. When such greens are made, too often not enough care is taken to well prepare the soil beneath by thoroughly working it first. There seems to be fear lest the grass should grow too strong. A free use of the mower soon corrects that. When you have done what is advised, and at once, get basic slag and pour it over the green at the rate of 3lb. per rod area, following by an equal quantity of sulphate of ammonia in May.

Old Furze bushes (ENQUIRER).—It is doubtful if Furze bushes so old as those described will grow again from the root if cut right down, but if they are in a place where it is not convenient to replace them by young bushes, it might be worth trying. In a wild state the habit of the Furze is to be a bush of not very long life. When it attains the size described it usually dies. We think it probable that the wild or single Furze may shoot again if cut down, but that the double may not do so. It is always advisable to keep these bushes cut back from time to time in a younger state, when they make more shapely bushes and their lifetime is much prolonged. If they are cut down, it should be in the winter, not later than February. On sandy soils nothing is of more importance, both for plants and shrubs (excepting those only that like as much dry heat as we can give them), than to mulch the surface of the ground.

Strawberries grown in barrels.—I have heard so much about the advantages, and otherwise, of growing Strawberries in barrels, that I should be greatly pleased if you would kindly give me some information about this method of culture. There is no doubt that the system wants thoroughly explaining. Some of my friends declare it is a mere fad, but I have heard good reports of this way of growing Strawberries.—A. [Much nonsense has undoubtedly been written about growing Strawberries in barrels. There is something in it, and to those who have little or no garden space it is certainly important. We believe it is an American idea, and has the merit of novelty. The fruit ripens rather earlier than the crop out of doors, and it is a good way to get a few early fruits, the quantity, of course, depending upon the number of barrels used. The best position for the tubs is a sunny corner, say against a greenhouse, where, sheltered from cold winds, the fruit is developed as rapidly as possible. There are three tiers of holes in each barrel, six holes in a tier, and the plants are put in at the same time as the barrel is filled with loam, this being done about the month of February. The top is also planted, and the necessary watering of the plants is done from overhead. By growing Strawberries in this way the fruit is not soiled, and can be readily protected. Our correspondent plants in February, but we should have thought this season was the best. Those who intend to grow Strawberries thus must have very strong plants to begin with, specially selected, and of vigorous kinds, such as Royal Sovereign, President, and Vicomtesse Héricart de Thury. These make a large growth, and the holes for them should be quite 5 inches or 6 inches across; about half that width is sufficient for those of smaller growth, such as Frogmore Pine. Remember how important it is to thoroughly drain the soil, which otherwise would get quite sour. In some cases three 4-inch boards are fastened together in the centre of the tub, with holes bored in them, but filled with hay. This ensures a sweeter condition of the soil, as water passes away readily. Put drainage in the bottom of the fruit swelling weak liquid manure will be helpful. The barrels should be raised a few inches from the ground, and it is very easy to turn them about so that the plants receive an equal share of light.]

GARDENING APPOINTMENTS.

MR. JOHN BUTLER, for some years gardener to the Earl of Ancaster at Normanton Park, has succeeded Mr. Walters as gardener to Miss A. de Rothschild at Waddesdon Manor.

MR. J. G. MURRAY, Royal Gardens, Kew, as Horticultural Lecturer, Durham University College.

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THE APPLE HARVEST.

LAST year about this time the majority of growers, both private and commercial, were bemoaning the fact that they had no Apples, and the fortunate few who had a crop were congratulating themselves at the prospect of the prices it would fetch. Matters turned out just as they promised, and while it lasted home-grown produce commanded a good price, but it did not last long, and before the winter was over it was almost impossible to buy British fruit. In spite of the general failure, however, the country was not short of Apples, for foreign growers were quick to realise their opportunities and sent fruit into the markets in quantities which were perhaps never before heard of, and with the result that, except in the cases of those people who only relish home-grown fruit, the Apple famine in this country was not seriously felt.

The Apple harvest has begun again, and the outlook is far different from what it was a year ago. Generally speaking crops are good, and in private gardens there will be no need to transform the fruit room shelves into receptacles for odds and ends, as all the available space will be required for the Apples. One has no fault to find with the private garden culture of Apples in this country, and if every phase of fruit production were as good we should be far more self-supporting in this useful commodity than we are. In private establishments one meets with the same run of recognised varieties. Generally speaking, pruning and other cultural operations are well understood by private gardeners, and care is taken in storage, so that the supply lasts over as long a period as it possibly can. The fact is gardeners take a personal interest in fruit culture as being an important part of their business, and by putting technical knowledge into practice the best results are obtained.

On the commercial side of Apple culture a very different state of affairs exists. There are some, of course, who make it a speciality, and by producing the best examples obtain the best prices, but when one considers the number of Apples that are really grown in this country it is surprising the small source of profit to the cultivators, and how little they do towards supplying the million with this useful food commodity. It is during the autumn and early part of the winter that one sees how a big Apple crop is disposed of. Growers seem possessed of one great anxiety—to get rid of

their fruit at any cost, and irrespective of prices they rush it into the market in far greater quantities than customers can take, just as though Apple growers had no other object in life but to get rid of their produce with all possible despatch. The result is obvious. For a time there is a glut of fruit, but no matter how heavy the crop is home-grown Apples are invariably scarce towards the end of the winter, and then the foreigner with his nicely graded and well packed examples steps in and smiles at the puny attempts of the Britisher.

How many people who have fruit to sell think of selecting their best examples of late-keeping sorts and storing them till the rush is over, and customers are anxious to buy? Some do, of course, but they are few in number. Then there is the question of varieties. Big Apple crops are of no great benefit to either growers or consumers, because half the produce is not of marketable quality.

Anyone travelling through the splendid orchard districts in the West of England at this season may see the branches of trees on every side wreathed with Apples, and the casual observer might be disposed to think what a good thing the heavy crop must be both for the farmers and the people who live in crowded town areas and have to buy the fruit they consume. The heavy crops might be doubly beneficial if conditions were different, but as it is the question is doubtful, to say the least of it. Look at the condition of the trees to begin with. Here and there one sees good and properly tended orchards, but for the most part the trees are old, crowded, gnarled, and Moss-covered; in short, worn-out relics of a past generation, and the part they play in the fruit supply of the country can never be an important one. The varieties, too, are of a mysteriously mixed character, and in the cases of the oldest trees they are mostly of local origin, and the destiny of the fruit obtained from them is the cider mill. It would appear from reports that there is a possibility of the revival of the cider-making industry, on account of the wholesome character of the beverage when properly made, but cider-making must be conducted on a system if it is to be a thriving industry, and the varieties of Apples most suitable for the purpose should be grown.

Only a limited number of varieties are required commercially, and if by one great sweep the whole of the common local and inferior sorts could be done away with and

replaced by good recognised varieties, both producers and consumers would be better off. One can hope for nothing sudden or radical, however, in the way of changes, and it is only as the old trees die one by one that the inferior varieties will pass away. The present generation of planters is fortunately aware of the importance of growing only high-class varieties, and considering the number of trees which have been planted during the past few years, one can look forward with some confidence towards a better era of Apple culture in the future.

One may blame the farmer in Apple-growing districts which are far removed from market centres for the laxity of his methods, but he is not without his excuses. He asks what is the good of spending time and capital over fruit culture when railway rates and other charges prevent the selling at a profit. There may be grounds for the excuses and the state of affairs is lamentable, for does it not point to a deplorable want of co-operation on the part of producers. It is not by individual effort working alone that foreigners have captured the markets of Great Britain, but by a combination of forces, strong and weighty enough, purely through co-operation, to remove the obstacles which stand in the way. The temperament of Englishmen and the habits and customs of rural life seem to be in the direction of individualism rather than combination, but even though we pay the foreigner a high compliment by adopting his methods, we can readily afford to do it in the interests of the home industries, which are so important to the country. With final reference to the Apple harvest, when we consider the wants of the millions and compare them with the home productions the fact that the danger of glut exists in seasons of plenty shows that there is something wrong.

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.

GLADIOLI FROM LANGPORT.

Messrs. Kelway and Sons send from Langport Nurseries a superb collection of Gladioli, showing the fine hybrids that have been raised by them of recent years. This work we are glad to see is being followed with even keener zest to-day, and the novelties shown at the meeting of the Royal Horticultural Society on Tuesday, the 9th inst., were evidence of this. In the gathering for our table were the following, and in each instance the spike was tall, strong, and the flowers widely expanded to show the beauty of their colouring: Mrs. J. Laing, a pure and beautiful cerise; Sir Chas. Warren, damask red, a lovely shade; Mr. Chamberlain, cerise, splashed with white; Alice Wood, pale lemon; Iau Kelway, crimson, with white centre; Miss Wade, white, heliotrope tips; Countess Crewe, white, centre mauve; and Rock Sand, deep scarlet.

WATSONIA ARDERNEI, SALVIA HORMINUM, AND ROSA RUGOSA HEPS.

Mr. Crook sends from Forde Abbey Gardens, Chard, flowers of this *Watsonia* gathered from plants in the open garden. They were grown in pots under glass during the winter, but planted out when all fear of frost was over. Our correspondent also sends the Clary (*Salvia Horminum*) from seed sown in spring, and it gives a fine mass of colour in the garden in summer and autumn. The fruits of *Rosa rugosa* were very fine, and cut from a bush 3 yards to 4 yards across growing on the turf, and associated with the white variety.

MUTISIA DECURRENS.

Mr. Fitzherbert sends from Kingswear, South Devon, flowers of this beautiful climber with the following note: "This climber has produced a dozen of its handsome flowers this summer with me, the rich orange blossoms, $4\frac{1}{2}$ inches across, with their gracefully reflexing ray florets appearing almost scarlet in colour in the sunshine. In the spring of 1901 I procured a small plant which grew well through the summer, but suddenly collapsed after two days' heavy rainfall in September. I wrote to the Rev. Henry Ewbank, in whose garden I had previously seen the plant, asking him if he could suggest a reason for its sudden death. He replied that he suspected the cause to be excess of water at the roots, as he had lost a plant owing to the gardener over-watering it. Through the whole of 1902 I endeavoured unsuccessfully to obtain another plant. The firm I procured my first one from was unable to supply it, and I met with no better success elsewhere. One day I saw at a friend's a small plant in a pot which I was told had been bought of a local nurseryman, whom I at once visited in order to get a similar plant. I found, however, that not one remained, but was told that a plant should be procured for me. After waiting three weeks or so I received a letter informing me that neither at home nor on the Continent was a plant of *Mutisia decurrens* to be obtained. Early in 1903, however, I had two plants from different sources almost simultaneously. I determined to plant them against the gable end of a small stone shed over which large mesh wire-netting was strained at a distance of 3 inches from the wall. On this *Polygonum baldschuanicum* was trained backwards and forwards, so that the gable was entirely covered with foliage in the summer. The soil on either side of the *Polygonum* was taken out to a depth of 2 feet and 1 foot of broken bricks and stones put in, so that thorough drainage should be assured, and 1 foot of loam, peat, and coarse sand placed over the drainage. The plants were very slow in making a start, but, when they once began to move, continued to grow right through the autumn and winter, reaching the top of the gable, about 7 feet from the ground, in May. One day in the autumn I noticed that the top 6 inches of one plant was withering, and fully expected the whole to collapse as my first one had done. However, after I had cut off the flagging portion the mischief was stayed, and the plant threw out a strong side shoot from near the top. The two *Mutisias* ascended behind the wire-netting, so that their stems have been entirely

shaded the whole summer and are brown and leafless, the only foliage being where they have surmounted the gable and are clinging to two dry, twiggy branches that have been firmly fastened to the netting below. The gable faces south-west, and is flanked by a high wall on the south-east 6 feet distant, while on the north-east is another high wall 8 feet distant, and on the north-west stands a house 15 feet away, so that the position is a very sheltered one. The plants enjoy the sun from 11 a.m. until 3.30 p.m. A writer in *THE GARDEN* a few years ago spoke of the *Mutisia* sending up suckers freely, but there is no sign of a sucker from either of my plants, and the raiser of one of them told me a few days ago that no sucker had appeared since he detached mine from the parent plant over two years ago, so that the appearance of suckers cannot evidently be counted upon. Being a native of the Chilian Andes, the *Mutisia* might well be considered tender, but at least three instances are recorded in old volumes of *THE GARDEN* of its succeeding unprotected in the open as far north as Scotland."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

- August 22.—Warkworth Horticultural Society.
 August 23.—Royal Horticultural Society's Meeting in New Hall, Westminster; Royal Oxford Horticultural Society's Show; Brighton Horticultural Society's Show (two days).
 August 24.—Harpenden Horticultural Society's Show; Colwyn Bay and District Horticultural Society; South Manchester Horticultural Society.
 August 31.—Reading Horticultural Society's Show; Bath Floral Fête.
 September 2.—National Dahlia Society at Crystal Palace (two days).
 September 6.—Royal Horticultural Society's Committees.
 September 7.—Hull Horticultural Association (two days).
 September 14.—Royal Caledonian Horticultural Society's Show, Edinburgh (two days).
 September 20.—Royal Horticultural Society's Committees; National Rose Society's Autumn Show.
 October 5.—National Chrysanthemum Society's Show at Crystal Palace (two days).
 October 12.—Royal Botanic Society.

The Royal Horticultural Society.

Forty-nine new Fellows were elected at the general meeting of the society on Tuesday, the 9th inst., including the Hon. Mrs. Evelyn Cecil, Mrs. de Chapeaurouge, Baron Donner, Mr. B. S. Faudel-Phillips, Captain R. A. F. Kingscote, the Hon. Mrs. Herbert Lawrence, the Lady Malcolm of Portalloch, Lord Oxmantown, and Mrs. Wordsworth (Salisbury). The next ordinary exhibition and meeting of this society will be held on Tuesday next, when Professor Boulger will deliver a lecture on "The Preservation of Wild Plants."

Cherries.—In the interesting article on Richard Harrys (page 110) a quotation is given in which it is said that the sweet Cherry was introduced into England by Harrys. Disraeli, in "Curiosities of Literature," in a chapter on the introduction of exotic flowers, says that Pliny mentions the introduction of the Cherry tree into England. I cannot find the passage in Pliny, and should be obliged to anyone that will give me the right reference.—ELLACOMBE.

Fruit trees in pots at Bishop's Stortford.—Messrs. Rivers always show such good pot fruit trees that great things are always expected, and the group of pot trees sent to Bishop's Stortford show was unusually fine. Special mention must be made of a magnificent Cherry, the centre plant of the group, a very fine tree, and laden with fruits. The variety was Bohemian Black Bigarreau, which I have never seen so fine as on this occasion. The trained pot Vines were a special feature; they carried very fine bunches with well-coloured berries. The variety

was Gradiska, a Grape that does well without heat, and belongs to the Sweetwater section. Plums also were very fine, and these comprised Oullin's Golden Gage, Blue Rock (a large rich flavoured sort), and The Swan (a large red fruit valuable for cooking). Smaller trees of the Emperor Francis Cherry were laden with fruit; this is a most useful pot Cherry, it rarely fails, and the trees fruit very freely in a small state. Peaches were very fine, and there was no lack of other fruits, such as Apples, the well-known Peasgood's Nonsuch being the finest. The plants were perfect specimens and the fruits large for the time of year. There were several new varieties that will doubtless be heard of in the future.—G. WYTHES.

Scottish Pansy and Viola Association.—The usual monthly meeting of the above society was held on Wednesday, the 10th inst. The following were the awards:—Fancy Pansies—first-class certificates: Mrs. W. Sinclair (Dobbie and Co.) and Emmie Bateman (Dobbie and Co.); certificates of merit: Peggie Smith (Dobbie and Co.), Dr. McDermott (Kay), Jessie L. Arbuckle (Kay), A. K. Brown (Kay), and Miss Turnbull (McLauchlan). Show Pansies—first-class certificate: Mrs. Fife (Dobbie and Co.), white self; certificates of merit: Katie (Dobbie and Co.), yellow self; A. W. Paterson (Dobbie and Co.), white self; Jane Stirling (Dobbie and Co.), primrose self; and Jessie Findlayson (Kay), white ground. Violas—certificates of merit: Lady Grant (Frater), Mrs. James Lindsay (Campbell) and Effie (Dobbie and Co.). Certificate of merit: Chrysanthemum Thomas Cullen (Johnstone), a sport from Mytchett White. First-class certificate for *Lobelia*: Blue Jacket (R. and A. Aitchison).

Irish Gardeners' Association.—A large party, representing the Irish Gardeners' Association and Benevolent Society, recently inspected the gardens at Kilruddery, Bray, by kind permission of Lord Meath. The grounds are notable for some excellent specimen conifers, Evergreen Oaks, and Yew, Lime, and Beech hedges. These range from 12 feet to 20 feet in height, and with grass vistas present a charming sight on a summer's evening. In the way of fruit culture, perhaps the most notable feature was the collection of Lemon trees, heavily laden with that valuable fruit.

A flower show in Clerkenwell.—The Quakers' Old Meeting House, close to St. John's Gate, Clerkenwell, was made gay with plants on Saturday, the 13th inst., it being the occasion of the annual flower show. Some 400 plants were given in the spring to families residing within the area, and a large number of these were exhibited for prizes on the above date. The district covered by the show is a very populous one, and many of the plants were grown under great disadvantages. Several prizes were offered for Fuchsias, Geraniums, Musk, *Lobelias*, *Nicotiana affinis*, *Petunias*, &c. A contribution of plants to help the display was sent from Gunnersbury Park. From other sources came cut flowers. Mr. Percy Waterer contributed a large basket of herbaceous Phloxes and other flowers; the quality of the Phloxes was excellent, and the basket was much admired and appreciated. The Mayor of the borough attended the show in the evening and distributed the prizes, among them some special prizes given by his Worship. In the course of the afternoon some window boxes and back gardens were judged in the most congested parts and prizes awarded.

Pansy Duchess of Sutherland.—Among bedding Violas this is a perfect gem, a soft bluish mauve in colour, and a very pleasing and attractive shade. Many Pansies become somewhat weedy in autumn, the flowers gradually dwindling in size, but this variety maintains its size and beauty to the last. Newly-planted Rose-beds in conspicuous places, carpeted with Pansies the first season, greatly improve the appearance of the beds, provided the colours harmonise with the Roses. If the plants are weak it will help them to keep the Rose buds picked off. A number of beds treated in this way at Kew have been very effective, especially the Pansy under notice.—A. OSBORN, Royal Gardens, Kew.

The Cactus house at Kew.—It will interest those who take more than a passing glance of the many beautiful things in the Royal Gardens, Kew, to know that the Cactus house is being entirely rebuilt.

Indigofera decora alba.—This pretty little shrub is now in flower in the open garden, its racemes of white, pea-like blossoms drooping among the bright green pinnate leaves having a charming effect. The type is a native of China, and, therefore, might fairly be expected to be hardy, but curiously enough it is more tender than *I. gerardiana* or *floribunda*, whose habitat is said to be India. This is often to be seen as a spreading shrub in the open, far distant from any wall, in gardens in the south-west. The subject of this note is far more rarely met with, and I know of but few specimens in the open. One of these is grown under the name of *I. floribunda alba*, which is certainly a mistake, as its leaves are quite distinct both in colour and size from those of *I. gerardiana* or *floribunda*.—S. W. FITZHERBERT.

Crassula coccinea in the open.—This brightly flowered South African plant, a favourite subject for conservatory decoration, succeeds admirably in the open in the gardens of Tresco Abbey, Isles of Scilly. In the neighbourhood of Penzance I have also seen it planted permanently in the open and doing well. Last year I thought I would try it in South Devon, and the large plant I procured in the spring came through the winter unharmed, and is now in full flower, bearing sixteen bloom-trusses, which range in size from 2 inches to nearly 5 inches in diameter. Three plants, of which the *Crassula* is one, make a pretty picture at the present time. Over a ledge rather more than 3 feet in height falls a veil of *Convolvulus mauritanicus* about 4 feet in width, which touches the path below, and is completely covered with wide-spread, lavender-blue flowers in the sunshine. Immediately above is the brilliant scarlet of the *Crassula*, and a trifle higher is a patch of *Campanula carpatica pelviiformis*, about 18 inches in diameter, which is carrying several dozen French grey, saucer-shaped blossoms about 2 inches across on upright stems a foot or so in height. All these plants are now at their very best, and being in close company show each other off to the best advantage.—S. W. FITZHERBERT, *South Devon*.

A hybrid Hedychium.—There was recently flowering in the Temperate house at Kew a very fine hybrid *Hedychium*, the result of intercrossing the Himalayan *H. angustifolium* with the fairly well known *H. gardnerianum*. Planted out in a bed, the plant had attained a height of 5 feet, and carrying as it did two large spikes of bright orange-scarlet blossoms it presented a most striking and at the same time uncommon feature. This hybrid is scarcely likely to be as hardy as *H. gardnerianum*, which last can be placed out of doors during the summer months, and it will survive the winter well if simply protected from actual frost. Another hybrid of the same genus is *H. wilkesianum*, whose parents are *H. gardnerianum* and *H. coronarium*. The beautiful flowers borne by many members of the Scitamineae, to which the *Hedychiums* belong, make it surprising that they are not more generally represented in gardens, as except the *Cannas* they are very seldom seen, yet the members of the following genera are very beautiful regarded only from a flowering point of view: *Alpinia*, *Costus*, *Curcuma*, *Kamperferia*, *Roscoea*, and *Strelitzia*, with others. Speaking generally they are of easy culture, the principal consideration being pretty liberal treatment, especially as to the supply of water during the growing season. Those that pass the winter in a dormant state should at that time be kept moderately dry.—H. P.

Geranium Paul Crampbell.—As a bedding plant this variety has undoubtedly come to stay, for the more it is seen the more will it be grown. It is a robust grower, the huge trusses being crimson-scarlet in colour, a shade lighter than *Henry Jacoby*. In some of the public parks, notably Hampton Court, Kensington Gardens, and Kew, the brilliant colour is very conspicuous. Unfortunately, like many other plants, it has two names, and it was exhibited as *Meteor* at the Drill Hall last year. For the greenhouse it is also

very useful and free flowering. During the recent heavy rains, while the trusses of other varieties have been shattered, *Paul Crampbell* is little the worse.—A. O.

Clerodendron fallax.—As a group the *Clerodendrons* exhibit considerable diversity of form, many of them being vigorous climbers, while on the other hand some are quite bushy. The majority of them are remarkable for the beauty of their flowers, that at the head of this note being one of the showiest of all. It is seen to great advantage when the young plants are grown on freely and confined to a single stem, as in this way it reaches a height of 3 feet to 4 feet, the lower-most half of which is furnished with large heart-shaped leaves, and the upper portion consists solely of a large, erect, broadly pyramidal-shaped panicle of blossoms, which are vivid scarlet in colour. It is very easily propagated both by cuttings and seeds, and succeeds best in the temperature of an intermediate house, as if kept too warm the foliage is very liable to be attacked by red spider. The flowering season is not limited to any particular period of the year, but the finest display is in July and August, at which time good well-flowered examples are very valuable for the embellishment of the greenhouse or conservatory. It is a native of Java, and has been long grown in this country. Another and a most desirable member of this section of *Clerodendrons* is *C. myrmecophilum*, a comparatively recent introduction from Singapore. As might be expected, it needs the temperature of a stove for its successful culture. The flowers are orange-amber in colour.—H. P.

Tufted Pansies in baskets.—Last year, for the second time, we grew tufted Pansies in baskets, with the object of illustrating their value for massing in the outdoor garden. Last year's efforts were distinctly successful, and led us to hope that this method of exhibiting was one worth repeating. For this reason the experiment was continued during the present season, and the display made by plants grown in this way has been in every way satisfactory. Tufted Pansies, with that dwarf and compact growth that should always characterise the plants, are well represented in this way. The practice of setting up tufted Pansies in wired sprays, as frequently seen at the leading shows, is certainly most attractive, but at the same time is misleading. The habit of plants bearing many of these fine flowers is often coarse and ungainly, and they are also less free flowering and consistent than the really true tufted sorts. Quite recently I was carefully going through a large collection of these plants, and paid special attention to sorts that have during the last few years received awards from some of the special societies across the Border. The results were most disappointing. The individual flowers certainly were very large and handsome, but the habit of the plants was quite unsuited for border displays. Everything seems to be sacrificed to the quality of the flowers.—D. B. C.

The Violetta or miniature flowered Pansies.—Beyond what the late Dr. Charles Stuart did in raising this new type of the tufted Pansies, when he gave us the original in *Violetta*, and a few others subsequently, very little else has been done. Some eight or nine years ago I was fortunate enough to raise half a dozen interesting varieties, but for want of attention I regret to say they were lost. During the last year or two I have endeavoured to obtain stock of the few varieties of other raisers, from one source and another, and now have a few of the prettier sorts in fair quantity. These plants have been flowering profusely for the past six weeks, and advantage has been taken of the warmer weather of late to make several crosses. *Violetta* has been largely used as the seed-bearing parent, and already several excellent pods of seed have been harvested. There is also a very pretty deep blue sort, the name of which I am unable to trace, that has provided excellent material with which to work upon. *Queen of the Year*, another of Dr. Stuart's gems, is a variety that I had great hopes of. None of the crosses have, so far, taken, but fortunately a pod or two of seed has been found which insects

have successfully fertilised. Should it not be possible to obtain more seed this season, I have reason to believe that that already harvested will provide many pleasing variations from the varieties already catalogued. These miniature flowered tufted Pansies or *Violettas*, as they are often called, are invaluable in the alpine or rock garden. They develop into charming little tufts, and as the summer approaches these are studded with dainty sweet-scented flowers.—D. B. CRANE.

Nature Study Course.—A course for helping those who are desirous of furthering their knowledge of Nature Study was held at the Horticultural College, Swanley, from the 1st to the 13th inst. Rambles in the country under the guidance of naturalists were the chief feature. An excellent introductory address was given by the Hon. Sir John Cockburn, K.C.M.G. Mr. J. C. Medd and the out of door superintendent, Miss Turner, gave demonstrations and instruction in simple gardening. Mr. Finn superintended the investigation of bird and insect life in the woods and fields, whilst on alternate days Mr. Tabor (resident science lecturer) led excursions for studying wild flowers, trees, grasses, &c., in their different environments. An introductory lecture on the life-history of the bee was given by Mr. Herrod, F.E.S., followed by practical demonstrations and investigation of their homes by Miss Dunham Massey (first-class bee expert, B.B.K.A.). Many pleasant and instructive days were thus passed. The college is 17½ miles from London. Application for forms of entrance and further details to be made to Miss Sieveking, honorary secretary, 17, Manchester Square, London, W.

Scottish Horticultural Association.—A large number of the members of the association visited the Craigmillar Nurseries of Messrs. Dicksons and Co. on the 30th ult. They were received most cordially by Mr. W. H. Massie, one of the partners of the firm, and spent a most enjoyable and instructive time in inspecting the many leading features of this large establishment. Mrs. and the Misses Massie entertained the company to tea, and before leaving, on the call of Mr. J. W. M'Hattie, president of the association, hearty votes of thanks were given to Mr. and Mrs. Massie, the Misses Massie, and the firm of Messrs. Dicksons and Co. for their kindness. On the evening of Tuesday, the 2nd inst., the usual monthly meeting was held in Dowell's Rooms, Mr. R. W. E. Murray, Blackford House, one of the vice-presidents, occupying the chair. The table was not so well furnished with exhibits as usual, but some were of great interest. Among these we may note Messrs. Dobbie and Co.'s, of Rothessay, new fancy Pansies and Violas, several of which promise to be great acquisitions to the garden, decorative Roses, border flowers, and a number of beautiful annuals; Messrs. James Grieve and Sons, Redbrass, had a number of good Carnations, Violas, and other flowers; and Mr. John Downie and a few others also sent some good exhibits. Messrs. Dobbie and Co. received a first-class certificate for *Chrysanthemum maximum Princess Henry*. In the unavoidable absence of Mr. Peter Barr, V.M.H., Mr. William Smith, gardener to the Earl of Stair, Oxenfoord Castle, kindly gave an excellent paper on the culture of stone fruit on walls. It was full of valuable information, and was well received by the members, who gave Mr. Smith a hearty vote of thanks.

Hybrids of Fuchsia triphylla.—The note on the delightful little *Fuchsia triphylla* (page 86) concludes with the remark that it will no doubt prove a valuable subject for hybridising. It has already been employed for this purpose, and some seven or eight years ago a very pretty form made its way into English gardens from the Continent, sometimes under the name of *F. triphylla superba*, and at others as *F. triphylla hybrida*. Though it had come under my notice previously, I was greatly struck with a charming group of it three years ago in the Temperate house at Kew, and thought after such an attractive display that it would become more common, but it is still rarely met with. I fancy this neglect is chiefly owing to the plant requiring different treatment from most *Fuchsias*, so that when just

associated with the others the result is not always satisfactory. The variety in question is a hybrid between *F. boliviana* and *F. triphylla*, and as this last is a native of the West Indian Islands it needs at least an intermediate structure for its successful culture. The requirements of the hybrid are about the same, that is, the plants should from the beginning of the season be grown in an intermediate temperature till about midsummer, when they can be removed into the greenhouse. If stopped freely when young this variety forms a neat, bushy specimen, with the deep green leaves marked with bright red veins. The flowers, which are borne in effective clusters, are over 2 inches in length, and scarlet-crimson in colour. There is a second variety of the same origin not much removed from the preceding, but the growth is rather denser and the flowers somewhat brighter. The name is *Mary*.—H. P.

Begonia Washington.—This tuberous-rooted variety of *Begonia*, which was prominent in Messrs. Veitch's exhibit at Holland House, is a delightful little pot plant, and it should also prove of considerable value for bedding. It is dwarf and compact, and the bright green leaves are a setting to the brilliantly-tinted blossoms. These last are by no means large but perfectly double, and in colour bright vermilion-red. This variety was distributed by M. Lemoine of Nancy some two years ago, so that as yet it is by no means common in gardens. Another of the same section from the same source is *Lafayette*, with bright crimson-scarlet blossoms. It was sent out some years previous to *Washington*, and is very much used for bedding. The flowers are double. A form with single blossoms, *Count Zeppelin*, is a good deal of the same hue and very free blooming. These sturdy growing compact varieties are much superior as bedding plants to the very large flowered forms, as these last droop so much, especially when wet, that a good deal of their beauty is lost.—H. P.

Begonia Count Zeppelin.—This is one of the best double tuberous *Begonias* for bedding. It is only about 9 inches in height, the small scarlet flowers being produced in great profusion. A bed of it alone, as at Kew, near No. 4, is very effective, but it is even prettier with some other plant to show off the brilliant flowers. A very happy and pleasing combination is obtained by mixing it with *Leucophyta Brownii*, and dot plants of *Fuchsia macrostema variegata*, about 18 inches in height. Should it be necessary to work up a large stock, several inches of the tops of the shoots should be cut off when the plants are lifted from the beds in autumn. Dibble them thickly in cocoanut fibre in a warm house. Small bulbils will be formed at the base before the tops die off, and these, if started early in spring, make nice plants for bedding out the following summer. It is also very useful as a pot plant for the greenhouse.—A. OSBORN.

Microglossa albescens.—Among the huge number of Composites hardy in this country comparatively few are of a shrubby character, and of the limited number the best known are the *Olearias* or Daisy Trees of New Zealand, *Cassinea fulvida* more frequently met with as *Diplopappus chrysophyllus*, also a native of the same region, and the *Southernwood* (*Artemisia Abrotanum*), which is familiar in cottage gardens. This *Microglossa*, a member of the same order, is very seldom met with, yet it is a decidedly pretty shrub when in flower, and its value in this respect is increased by the fact that its flowers are borne during the latter part of July and well on into August, at which time flowering shrubs are by no means numerous. It is closely related to the *Asters*, and indeed has been known by the name of *Aster albescens*, but was figured in the *Botanical Magazine* as *Microglossa*, under which name it is grown at Kew. Decidedly less woody than many shrubs, it dies back a good deal during the winter, but the shoots that are pushed out towards the base reach a height of 3 feet to 4 feet and flower well the first season. It is of erect growth, and the branches are clothed with lanceolate-shaped leaves, and terminated by dense flower heads, some 6 inches across, while after these are past supplementary ones develop just below. The individual blossoms are about one-third of an inch in diameter and of a

pleasing lavender shade, but in this respect there is a certain amount of variation. It is a native of the Himalayas, and was introduced therefrom over twenty years ago. In the light warm soil at Kew it does well.—T.

Anomatheca cruenta.—This is a lovely small bulbous plant; its growth much resembles that of an *Ixia*. The flowers are bright scarlet and crimson. As it is a native of Cape Colony it will at once be understood that it does not need a warm house. The last week in July I saw this in splendid condition in the open garden at Bovey House, near Seaton, Devon. It was growing in a large bed on a south border with a wall at the back, and was a mass of flowers, which will continue evidently for many weeks. I was told that the seed was sown where the plants are blooming. In a garden near Honiton it is used as an edging to a border, and is perfectly hardy there. Evidently it is nearly hardy, seeing that the bulbs under notice have never been lifted, and nothing could look more vigorous. This is a charming plant to grow for cut flowers, and one that should be more known.—J. CROOK.

The Caper (Capparis spinosa).—This South European plant is of especial interest from the fact that the Capers of commerce are furnished by the unopened flower-buds, but it is in addition well worthy of consideration for its flowers. It forms a sturdy bush that reaches the height of 3 feet or so, and is clothed with roundish ovate deciduous leaves. The flowers, borne as a rule in July and August, are in general appearance somewhat suggestive of a *Hypericum*, except that they are white, with the long prominent filaments of a purplish hue. To flower well it needs full exposure to the sun, and the protection of a greenhouse in winter. Trained to a low wall in front of the Economic house at Kew, and sheltered by a frame during the winter, it yields each recurring summer a charming display of blossoms, and though the individual flowers do not last long they are so numerous as to keep up a display for some time. The date of its introduction is given as 1596, but it is seldom seen except in the south-west of England, where it will survive the winter against a wall.—T.

THE FLOWER GARDEN.

EARLY-FLOWERING CHRYSANTHEMUMS.

IT is not too early to talk about the prospects of the early-flowering *Chrysanthemum* season, as within another month the plants should, in many instances, be in full blossom. As a matter of fact, we have been able to make a gathering of *Chrysanthemums* for some weeks past, but have now come to the conclusion that this is a result that cannot be regarded with any real satisfaction. July and early August are far too early for most people to appreciate these plants in flower, as there are so many other things in beauty. This type of *Chrysanthemum* belongs to the early autumn. At one time the best of the so-called early-flowering sorts came into bloom in October. With the advent of Mme. Marie Masse and a few other Continental introductions, rather less than ten years ago, a change came. These plants began to flower in the latter half of August, and for many weeks they improved and made a bright display outdoors, and it is of the outdoor varieties I wish to speak. With the sports of the variety already mentioned we now have quite a group of the early-flowering *Chrysanthemums*, and each one has the same excellent qualities as the parent variety itself. It is an ideal outdoor *Chrysanthemum*, as it is strong and branching in growth. One may cut constantly without materially interfering with the beauty of the display, so abundant is the flowering. Of the Mme. Marie Masse family there are the following members: *Horace Martin* (glorious yellow), *Crimson Marie Masse* (chestnut), *Rabbie Burns* (cerise-pink), *Ralph Curtis* (cream), and, if we may depend upon the catalogue description of the most recent sport, we have a pure white addition to the family. These sports, together with the lilac-mauve blooms

of the parent variety, give a beautiful series of colours, sufficient variety, in fact, for many small gardens. These plants have been freely used by the hybridiser, and numerous sorts of a high order of merit are being distributed each succeeding spring from the progeny of the successful crosses. The majority of the better sorts flower in September and October. Unlike many other outdoor plants, these hardier *Chrysanthemums* are of the simplest culture.

All through this warm summer weather the plants without artificial watering have succeeded remarkably well. Owing to boisterous winds at different periods during August the growths should be kept securely tied or rather looped to the stakes inserted for their support. Looping the growths is far better than the practice so many follow of tying in the growths tightly; the former method preserves the grace and beauty of the plants. The hoe is still used freely between the plants to sweeten the soil. This latter practice appears to contribute more to the well-being of the plants than any other item of culture, and they never fail to respond to such welcome treatment. As the soil is still very dry 1 inch or 2 inches below the surface, we are now giving copious applications of clear water to the roots, following this with a generous supply of weak liquid manure.

Highgate, N.

D. B. CRANE.

PENTSTEMONS.

It is very disappointing when, having raised a quantity of young plants of *Pentstemons* from seed early in the spring, planted them out, and had a fine bloom from them in the autumn, to find the winter, either because so wet or so severely cold, has either destroyed the plants absolutely, or has so maimed them that they are almost useless henceforth. Those who have a greenhouse or a frame may get over the disappointment somewhat if plenty of cuttings have been taken off during September and put into pots, stood on a shelf or in some moderately shaded part of the frame, and there nicely rooted. Such young plants potted up singly in the spring, and later planted outdoors, make capital substitutes for the old plants which the frosts have destroyed. When, however, the old plants do survive the winter unharmed, then the many strong shoots sent up from the stems of the plants produce such clusters of bloom as to excel materially anything that can be obtained from young seedlings or cutting-made plants. But it is not difficult to have, apart from the cutting-made reserve, a quantity of young plants to stand the winter if a sowing of seed be made within the next few weeks. *Pentstemon* seed does not germinate very rapidly and plant growth is rather slow, so that if seed be sown at the end of July or early in August it is not probable that the seedling plants will be by the end of November at all too large to keep, as they are in a frame or under a handlight for the winter. The best course would be to dibble them out from the seed-bed or pans into a frame thickly or else under handlights. When once rooted very little protection will suffice to keep them safe through hard weather. In the spring these plants, lifted carefully with small clusters of roots attached and as carefully planted out, will soon develop into strong-blooming ones and make a fine display all through the early summer, a spring sowing coming on to make a succession. Practically, *Pentstemons* should always be treated as biennials, but consideration has to be given to the fact that they are not always so hardy as true biennials should be.

The *Antirrhinum* is pretty much in the same way as the *Pentstemon*, for both are somewhat soft-wooded and are apt to die wholesale under the effects of severe weather. Snapdragons are so prolific of seed that they may be easily raised at almost any time, and although with these, as with *Pentstemons*, no plants produce such a fine display of bloom as do strong ones that have been safely wintered outdoors, yet dead ones may readily be replaced by seedlings raised by an autumn sowing. As to the raising of *Pentstemons* from seed, it is best always to obtain a really good stock. There is such a wide difference now between good and

indifferent strains that only those familiar with the former can understand how great is the advance made in the flowers. Once a good strain is secured it is easy to retain and even to improve it. Something, perhaps much, has been done in the direction of improvement by cross-breeding, but very much also has come from selection, and it is open to any amateur grower of Pentstemons to select the very best flowers, mark them each year, and save seed from these alone. In that way it will be found easy to greatly improve any stock. Any new grower of Pentstemons, however, will do wisely to make as good a start as possible with a fine strain, as it is sheer waste of time to go over the ground which others have long since traversed, when the results of their labours may be had in seed form at a trifling cost. Very much improvement has also been effected in the habit of growth of the Pentstemon, but yet there is still room for further progress in that direction. A.

NOTES ON LILIES.

LILIUM LONGIFLORUM.

WHAT a pity it is that this species refuses to accommodate itself to our English climate! It was, I think, almost the only Lily that the late Mr. Wilson could not induce to thrive in his Wisley Garden; in fact, I never remember seeing a single flower of it there. It seemed strange that in a place where even that delicately-constituted aristocrat *Krameri* was induced to retain perennial vigour, the apparently much more robust *longiflorum* was a failure. My experience, which I believe is shared by Lily growers generally, is that one must treat the Lily in the same manner that one has to treat Hyacinths, that is, by bulbs annually. Imported bulbs planted in good soil will throw up strongly, but there is something in our climate that prevents them finishing off their growth in a way that will enable the bulbs to produce good blooms the second year. It is not that they die away, but the growths are too much multiplied, so that in the case of bulbs that have been established several years one may see half a dozen small stems producing among them two or three flowers. Either soil or climate, perhaps both, prevent that concentration of vigour which is necessary for the formation of strong flowering bulbs. Although this Lily is so unsatisfactory in English gardens generally, I am not sure but what it might be grown with success in some parts of the kingdom. We are only just beginning to recognise the potentialities of our soil and climate for the production of bulbous flowers, which for so many years have been furnished by Continental growers, and which it was thought could not be grown good enough for trade purposes in this country.

Not so many years ago we imported nearly all the Crocus and Snowdrops we needed. Now they are grown in large quantities in Lincolnshire, the quality being very good. Tulips have been taken in hand with equally satisfactory results, and there are hopes that even Hyacinths will be dealt with in the same manner. Soil and climate vary so much in the British Isles that we may yet see such Lilies as *longiflorum* and *speciosum* produced at rates that may enable us in a great measure to be independent of importation from foreign countries. We have now come to the time of movable glass houses which can be shifted from one crop to another as the season advances. With their help it is more than possible that many bulbous flowers could be cultivated to a higher degree of excellence than is possible when they are fully exposed to the vagaries of our English climate. To florists engaged in the wreath and cross trade *L. longiflorum* came as a boon and a blessing, the form and exquisite purity of the blooms lending themselves so well to that kind of work. For pot culture one cannot well get the bulbs cared for too early. Get them as soon as they come into the traders' hands, so that they may feel the influence of the warmth of our English autumn. There is a vast deal of

difference between potting Lily bulbs in September or October and doing so at the close of or at the beginning of the year. The difference is that in autumn the soil retains a considerable amount of summer warmth, so that root production is much facilitated. Roots are put out with freedom and are working into the soil by the time that late potted bulbs are beginning to make them. This means that by the time growth commences roots are then in abundance, the natural consequence being that the flowering stems come up strong and healthy and able to yield flowers of good quality. In proportion to the foliage Lily flowers are very large, and, looking at the slender stems and narrow leaves, one wonders how they are able to develop so many blooms of fine quality. The strain on the plant must be great, and it is only when means are taken to ensure the formation and continuous health of fibrous roots in quantity that the full glory of the Lily can be realised.

The compost found most agreeable to this Lily is fibrous loam, with a liberal addition of leaf-mould, or, better still, manure that has been turned over frequently for a couple of years. In this most

NOTES ON HARDY PLANTS.

ARUNDO CONSPICUA.

ARUNDO CONSPICUA has done so well in my garden this year that I have had it photographed, and in the hope that it may be of interest to you and your readers I send you a copy. The longest plume measures 12 feet 10 inches, and the plumes extend over 16 feet. There are fifty-eight plumes. It was photographed by Mr. Donald Massey of Bognor.

A. J. MACLAVERTY (Colonel).

The Hawthorns, Bognor, Sussex.

HEMEROCALLIS CITRINA AND ITS HYBRIDS.

This new *Hemerocallis* has given new blood to the Day Lily family. The finest hybrid is *Hemerocallis* Sir Michael Foster (*aurantiaca* major × *citrina*). Leaves evergreen, often with a blue



NEW ZEALAND REED (*ARUNDO CONSPICUA*) IN THE GARDEN OF COLONEL MACLAVERTY, BOGNOR.

things root with freedom, and it gives the nourishment necessary in the earlier stages of growth. In growing Lilies in pots it is customary to leave space for a top-dressing of a couple of inches of light rich soil into which roots push from the stems, thus aiding the development of the blooms. If the compost is used in a moist condition little or no water will be needed for some time after potting. When only loam of a very tenacious character can be obtained it is well to add a little peat in the form of lumps of the size of a pigeon's egg. Peat is naturally antiseptic, is a safeguard against the compost coming into a sour condition, and induces the multiplication of fibrous roots. I do not know of a fairer sight than a house 100 feet long filled with this Lily, the foliage of a rich green down to the pots, topped with highly developed blooms. In the London market gardens I have never seen this Lily grown on stages, but invariably on the earth, the constantly rising moisture from which is undoubtedly grateful to the plants.

J. CORNHILL.

shade, elegantly recurved, and at the base red, grows bushy, and even without flowers is a fine plant in the border. The flowers are sweet scented and clear yellow. The inner petals are large and undulate, while the outer are smaller and not undulate. The flower is open for a day, and artificial crossing is needful to obtain seed. This is one of the finest hardy hybrids this year, and should be cultivated in every garden. *Hemerocallis Baroni* (*Thunbergii* × *citrina*) has the elegant growth of *citrina*, but the flowers are clear lemon yellow, tubular, only the outer half being widely open. Sweet scented. *Hemerocallis Müllerii* (*Thunbergii* × *citrina*) is not so tall as *citrina*, the flowers dark yellow and widely open, and the petals small but well formed, also sweet scented. *Hemerocallis ochroleuca* (*Thunbergii* × *citrina*) has the form of *citrina*, but the flowers are smaller, clear yellow in colour, and often light greenish. The three outer petals are recurved, but the three inner ones are smaller and spreading. It is a very curious flower. These plants like plenty of water

and manure. Once a week water them with a solution of cow manure and nitrate.

Naples.

WILLIAM MULLER.

SALVIA DICHROA.

THIS handsome *Salvia* is apparently very rare in cultivation, for there is no mention of it in the last fifty volumes of *THE GARDEN*. In "Nicholson's Dictionary of Gardening" its height is given as from 2 feet to 3 feet, but with me and in another garden where it is grown it is fully 6 feet in height. The flower-spikes are about 3 feet in length, and the individual blossoms are lavender blue, the middle lobe of the lip being white. About 9 inches of the spike is in flower at the same time, but as the lower blossoms fade the upper ones expand, so that the spike bears bloom for some weeks. Being a native of the Atlas Mountains in North Africa the plant is perhaps of doubtful hardiness, but in the south-west passes through the winter unharmed even when totally unprotected. In a flower-spike that I cut recently there were forty-eight fully expanded and half-opened blooms, while the total number of flowers and unexpanded buds on the spike were 175.

S. W. FITZHERBERT.

DIANTHUS 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 at the base. The flowers are numerous, and crowded in a close hemispherical head, the surrounding bracts being quite leaf-like. The dark red flowers are toothed and bearded. It is a perennial, slightly woody at the base, and is found among the rocks by the seaside in Eastern Europe.

W. I.

USEFUL COLONIAL AND FOREIGN FRUITS.

(Continued from page 101.)

KEI APPLE (*Aberia Caffra*).—This is the fruit of a shrub which is common in the eastern districts of the Cape of Good

Hope and in Kaffirland, where the plant is much grown for hedges, in consequence of its being covered with numerous strong spines, so that when once it becomes established it forms an impenetrable fence. The small golden yellow, Apple-like fruits when ripe are much used by the natives for making into a preserve. In the green state they are so extremely acid that they are then prepared for table as a pickle without vinegar. We are unable to give a personal opinion as to the capabilities of the perfectly ripe fruit in a raw state, but from a knowledge of the preserve made from Kei Apples the flavour has certainly something to recommend it.

In the closely allied genus *Flacomtea* three species may be instanced as furnishing edible fruits, as *F. Ramontchi*, a small tree common both in the wild and cultivated state throughout India, and found also in the Eastern Archipelago and Madagascar. The fruit is

about the size and shape of a Plum, and of a dark violet colour; the flesh has a sharp but sweet taste. As there is a certain amount of astringency in all these fruits it is necessary that they should be thoroughly ripe before being eaten.

Two well-known fruits belonging to the genus *Averrhoa* are the *Blimbing* and *Carambola*, the first furnished by *A. Bilimbi* and the second by *A. Carambola*. Both are small trees belonging to the *Oxalidæ* section of the natural order *Geraniaceæ*, and are cultivated in India for the sake of the fruits. Though closely allied species the fruits differ considerably in appearance, that of the *Blimbing* being cylindrical, almost like a small Cucumber, while the

tree of the order *Sapotaceæ*. It is a native of, and much cultivated in, South America and the West Indies, where the fruits ripen from October to January, during which season they are very abundant, and are much esteemed by all classes. It is usual to gather the fruits in a half-ripe state and ripen them in the house, as much to preserve them from the attacks of bats as to ensure their perfect ripening, for until they are absolutely ripe they are unfit to eat. That the fruits can be satisfactorily brought to this country by the cold chamber system was partially proved at the time of the Colonial and Indian Exhibition in 1886, but the experiment went to prove the necessity of a knowledge of the nature of the fruits

experimented upon, for in the case of all *Sapotaceous* fruits, as well as with those of some other natural orders, it is necessary that they should be dead ripe before eating. The Medlar is an example of this, as is also the Persimmon (*Diospyros virginiana*) and the Kaki (*D. Kaki*).

In the *Sapotaceæ* one of the characters of the order is the presence of a milky elastic juice in all parts of the plants—the true *Gutta Percha* is an example—so that in a green or semi-ripe state the juice readily coagulates with the warmth of the mouth and causes the lips to stick together, an experience to which many purchasers of the unripe fruits were subjected at the Exhibition in 1886, while those who were fortunate enough to obtain their fruits fully ripe pronounced them delicious.

Of other edible fruits belonging to this family the best known are the *Star Apple* (*Chrysophyllum Cainito*) and the *Marmalade Plum* or *Mamma Sapote* (*Lucunia mammosa*). Both are the produce of West Indian trees, and those who have tested them in the countries of their growth pronounce them of excellent quality, and likely to prove a useful fruit if it could be properly placed on the English market.

In the order *Apocynaceæ* we should scarcely expect to find fruits of an edible nature when we remember that a large proportion of the plants contain a milky juice which, upon being coagulated, forms a large part of the best-known African, Bornean, and Pernambuco rubbers of commerce, but even the fruits of some of the trees furnishing those rubbers are

edible when fully ripe. One of the best of the *Apocynaceous* fruits, however, with which we are acquainted is the *Natal Plum* or *Amatungulu* (*Carissa grandiflora*). They vary in size from that of a large Olive to an ordinary Plum, which they somewhat resemble, of a reddish colour at first, changing as they ripen to a dark violet. They have an extremely agreeable sub-acid taste, and from them the people of Natal make an excellent preserve. These fruits as well as the preserve have been frequently shown at the several international exhibitions, and have attracted some attention, but they



DIANTHUS GIGANTEUS IN HERBACEOUS GROUND AT KEW.

(Sometimes as much as 4 feet high.)

Carambola is winged or ribbed longitudinally. In a young and green state both fruits are very acid, but in ripening some of this is lost. The *Blimbing* is said to make an excellent fruit for tarts, and a cooling refreshing drink is also made from it. The *Carambola*, which ripens in December and January, is eaten both raw and cooked, but when stewed in syrup and flavoured with a little Cinnamon the fruits are said to make an excellent dish, and they also make good jellies.

The *Naseberry* or *Sapodilla Plum* is the product of *Achras Sapota*, a lofty hard-wooded

are still unknown in British markets. All the fruits yet mentioned here are, with the exception of the Custard Apple, quite unknown to English trade, but there are two which, though occasionally seen here, are not so well known as they should be, namely, the Mango (*Mangifera indica*) and the Guava (*Psidium Guayava*). To sound the praises of the Mango would be to repeat an oft-told tale. Though everybody has not had an opportunity of tasting Mangoes in their fresh state, almost everybody has heard or read of their value in tropical countries, and to what an extent they are cultivated and used and the variety of applications to which they are put. In this country they are, perhaps, best known as an ingredient in the valuable pickle known as Mango chutney. The Guava, again, seldom appears at our tables in any other form than that of Guava cheese or, perhaps, the fruits preserved in syrup. Both of these fruits, if not capable of being cultivated successfully in this country, might, we think, be imported from the West Indies in a fresh state. Space will not allow us to extend our list to any further length, but to show that there is more material upon which to work we will simply enumerate the following, all of which have more or less repute in their native countries, and some are not unfavourably known in this country.

Rambutan (*Nephelium lappaceum*) has a sweetish acid taste, like that of Lemon juice and sugar, and is said to have a wonderful power in allaying thirst. Kaki (*Diospyros Kaki*).—Flavour somewhat like Apricot, with a slight suspicion of the Medlar; ripens in English greenhouses. Wood Apple (*Feronia elephantum*).—The pulp makes excellent jelly, resembling in flavour that of the Black Currant. Bael Fruit (*Egle Marmelos*).—The pulp when ripe is sweet, aromatic and cooling, wholesome and nutritious. Langsat or Ducu (*Lansium domesticum*).—It is of a sweetish acid taste, and is eaten both raw and cooked. Litchi (*Nephelium Litchi*).—The pulp has a delicate acid flavour, most refreshing when fresh, but of poor quality in the dried state as seen in English shops. Loquat or Japan Medlar (*Eriobotrya japonica*).—It has somewhat the flavour of an Apple; sometimes ripens its fruits in this country. Cocoa Plum (*Chrysobalanus Icaco*).—Has a sweet taste, with a slight astringency, not much in favour in a raw state, but makes an excellent candied fruit. Otahete Apple (*Spondias dulcis*).—The pulp or flesh has an Apple-like smell, and in some varieties a flavour approaching that of the Pine. *Spondias Mangifera* and *S. purpurea* also yield edible fruits. Cape Gooseberry (*Physalis peruviana*).—This has already attracted some attention for cultivation in this country. The cooling and refreshing nature of the fruit strongly recommend it for extended culture.

THE TREE LUPIN (SNOW QUEEN VARIETY).

I AM sending you a photograph of a very beautiful shrub, which has been quite a sight in my garden this summer. It is a *Lupinus arboreus* Snow Queen, seed of which I procured three years ago. The plant flowered the second year from seed, opening its flowers the beginning of June and remaining in beauty right up to the end of the month. The flowers are pure white, but die off a soft rose. My bush this year was smothered in racemes of bloom, and produced, especially in the evening, a most lovely effect. The flowers have a delicate fragrance, and I can strongly recommend this Lupin for the hardy flower border. As a regular reader of THE GARDEN I thought this plant might be of some interest to you.

Bodegraven, Holland.

T. G. DE GRAAFF.

ROUND ABOUT A GARDEN.

AUGUST IDLENESS.

AUGUST always seems the holiday time of a garden. You have done your best or worst for the season, and can saunter about and enjoy the fruit of your gardener's labours—unless you are your own gardener, in which case even August is no time for sauntering much. Nothing, perhaps, conduces more to an intimate acquaintance with all your flowers than having to water them daily; but it accords better with the spirit of the season if you can leave the watering to others and view the general effect of the many-coloured flower-beds from shady points of vantage. A mid-August garden never looks better than thus viewed through vistas of greenery, for one has few temptations to go stooping about, as in spring, admiring floral gems a few inches above the soil.

THE BLAZE OF LATE SUMMER.

And Nature lends herself easily in the later summer to this distant wholesale worship, for now she flings up tall blooms which blaze in battalions, and strikes chords of colour which ring clear a hundred yards away. She uses the brush of a scene-painter, and splashes orange and scarlet and purple so lavishly that every cottage garden now looks like one giant nosegay, such as the villagers like to make up for departing visitors to "carry back to town." No matter how æsthetic your tastes may be, you cannot keep this August blaze out of your garden. It catches fire from every page of the florists' catalogues, and you are lucky if your gardener has not somewhere stoked up for you one of those *Geranium-Calceolaria-Lobelia* conflagrations which almost make you perspire to look at.

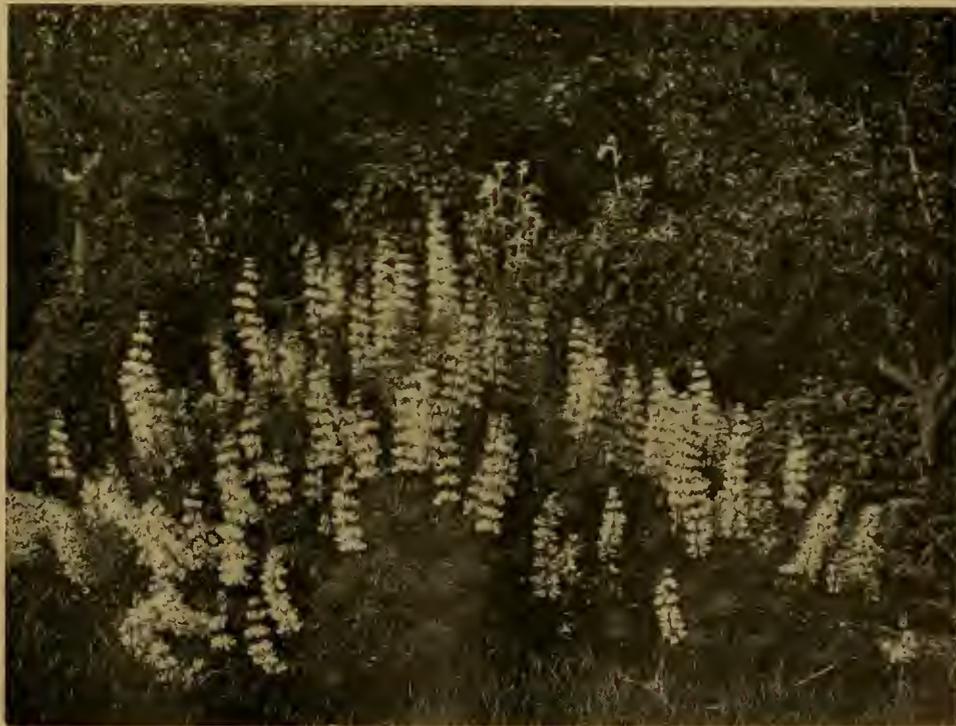
A JUDGMENT OF PARIS.

It is not only in the flowers that Nature uses her brightest colours for summer's final set-piece of splendour. British entomology

knows no more gorgeous trio of butterflies than the Red Admiral, Peacock, and Tortoiseshell, which now flicker and sail along the flower-beds, alighting here and there as if for the conscious pleasure of submitting their brand-new glories to your view. It would be a hard Judgment of Paris to deliver, had you to decide which of these three is the most beautiful—the Red Admiral, all velvet black, scarlet and white; the Peacock, of crimson damask, with starry eyes of many dainty hues; or the Tortoiseshell, tawny and orange and black, with delicate edging of blue. I think that your decision would always depend upon which you happened to be looking upon at the moment. That would seem unrivalled in beauty.

THE MULTIPLIED WASP.

But entomology covers other insects than butterflies, and a garden includes many samples, of which those that are unwelcome always seem to multiply the most. Only a little while ago we seemed to have no wasps—and undoubtedly they suffered very severely during the last two summers of cold winds and rainstorms—but now they are swarming again. For the wasp multiplies on the "snowball" system, which, as applied to popular subscriptions, means that each subscriber should get six more subscribers, and each of these six more and so on, until in theory the whole world would soon be filled with subscribers only. So with the wasp. In the spring there may be only one wasp remaining from last year, but she is a fertile female, and by hard work she builds a small set of cells which she fills with children. These add more cells and fill them with children, and their children and grandchildren go on doing the same, until in theory the whole world ought to be filled with those wasps. Sometimes when you look into a neglected greenhouse where the Grapes are ripening, or stand under a Willow where the ground is sticky with honeydew, there seem to be more wasps than are pleasant in the world already, but in Nature the manifest and



THE TREE LUPIN (*LUPINUS ARBOREUS* SNOW QUEEN) IN A DUTCH GARDEN.

inevitable corollary to rapid multiplication is wholesale annihilation, and the first chilly day of autumn seals the fate of 90 per cent. of the wasps, and of the remaining ten if one survives until next spring to carry on the race it will be a very lucky wasp. Perhaps this ought to soften our feelings towards the wasps in the days of their multitudinous audacity, but it is hard to feel friendly towards an insect which steals your sweets and threatens to sting you when you accidentally catch him in the act.

THE ROBINS' RETURN.

Luckily, not all the multiplying visitors to your garden now are insects. As the reaping of the harvest clears the land the birds are driven to find food and shelter elsewhere, and the shrubberies of country gardens offer welcome oases to them in the midst of a new-made wilderness. So day by day more robins find their way into the garden and announce their claim to a corner of it with a song. As most of them are young birds of the year the song is usually brief and quavery, but it will grow stronger as the autumn passes, and there is always a welcome ring in the robin's notes.

In the dusk of a late summer evening they may seem to remind us rather sadly of the early winter afternoons. But it is the pleasant side of winter that the robin recalls — the cheery, hospitable side, the pluck that faces hardship and the hope of happier time to come.

OTHER WELCOME VISITORS.

With the robins come the tits, and it is nice to know that some of them are the same tits that were with us last winter, because they go straight to the place where the food used to be hung up for them. Some, indeed, both great tits and blue tits, nested on the premises, and only led their fledged young afield a little while ago, but others have hardly seen the garden since they ceased to be daily pensioners in March. Equally welcome with the tits, though their stay will be shorter, are the family parties of black-capped bullfinches and goldfinches and linnets, which frequent secluded corners and amuse one by the half-hour with their pretty antics among the seed-pods and the weeds. A little later bullfinches will be a catastrophe rather than a charm in the fruit garden, but now they are doing no harm whatever, and you can whole-heartedly admire the brilliant carmine of the stout father as he teaches his ruddy-breasted youngsters how to pick the seeds out of a long plantain head. Even a covey of partridges, which come wandering anxiously down the path in single file, need not be scared over the shrubbery. The cornfield where they have lived all their lives as yet has been shaved bare, and they really do not know where they are going to live

now. To-morrow, perhaps, they will discover the shelter of a Turnip field, and if, when most of them have fallen in the terrible day of the great partridge drive in October, the remnant remember the quiet garden where they found sanctuary at harvest, they will be welcome again. Partridges are not things to cultivate in a garden to any great extent, but occasional hospitality to much-worried birds is another matter.

E. K. R.

THE ROSE GARDEN.

SEASONABLE NOTES.

THE PROMISE FOR AUTUMN.

THE value of deep cultivation is again abundantly evident this season. New beds of Tea and Hybrid Tea Roses planted in March are now sending up those fine shoots from the base that provide us with the rich and abundant blossoming next month. Everything points to a splendid autumnal display this year. Then is the time for the planter to make notes of sorts best for

heat could be given so much the better. The cuttings should be sprinkled several times a day if bright, and the glass shaded with sheets of paper or whitewash. A sunny position is best for the frames or glasses. By putting the cuttings in pots they are more readily removed to a greenhouse or cold pit, where they may be kept undisturbed until spring, if not convenient to pot off before. All rooted cuttings of this description prefer a gentle bottom-heat when potted off, and they should be kept growing in a gentle warmth. When they have become well rooted they can then be potted on, or if in spring planted out, shielding them against the baneful spring frosts.

BUDDING

is now in full swing. If stocks are full of sap there should be perfect success. It is not worth time and trouble to bud weakly, poorly-rooted stocks. I would advise all who desire thoroughly healthy plants and good flowers to see that the Briar stocks when planted possess some fibrous roots. Manetti stocks, seedling Briars, and Briar cuttings are budded upon the stems beneath the growths and as near the root as possible. In the case of the seedling Briar these are budded upon the actual root. Old Roses not now admired may be rebudded with modern sorts, provided there is some current

year's wood near their base. The old wood may be cut away at once. I have frequently made some fine plants in this way. It is best to cut such plants right down to the ground in spring, and thin out the new shoots to five or six, and bud on to these as near the ground as possible. Care is necessary the next season to rub off all new shoots as they appear, excepting the inserted buds.

LAYERING

may also be done now. Any Roses, ramblers, Tea Roses, in fact any Roses, will root from layers put down after the style of the Carnation, only rather deeper. Provide plenty of grit round about the tongue of the layer, and keep them well watered after layering. If the growths are long, tie them to a cane to prevent wobbling. The layers will usually be ready for transplanting in ten months.

P.

TREES AND SHRUBS.

THE CEDARS ON MOUNT LEBANON.

ON two mighty ranges in the Old World and in the New, Nature has set up a temple unbuilt by hands to compel the admiration and excite the wonder of those creatures of a day, mankind. In the Sequoia groves of California there stand trees so old that they may well have cast their leaves and shed their seed on the night of the Nativity. On Mount Lebanon the survivors of the groves which escaped King Solomon's four-score thousand hewers still stretch their gigantic arms and scatter their coes for the children of the West to bear away and propagate, that they may have before their eyes the offspring of the oldest trees of



THE CHILDREY CEDAR, PLANTED ABOUT 1641.

that season of the year, and it may be taken for granted that what are good in September will also be good for June and July. There will be perhaps a dearth of Hybrid Perpetuals of brilliant colours, but we shall soon be independent of these when we have more of such beautiful Hybrid Teas as Liberty and Etoile de France. I have found peat moss litter, after it has been well used in the stable, makes excellent mulch for Rose-beds. It keeps the moisture in the soil, and is at the same time a gentle stimulant. If the soil is well hoed before the application of the manure, such hoeing should suffice for some weeks. No one who has the interest of the plants at heart would think of treading upon the soil more than is absolutely necessary.

CUTTINGS

may be inserted at once under bell-glasses or hand-lights. Select wood that has just flowered. We usually have two eyes to each cutting and retain the foliage, excepting the end leaflet. Dibble the cuttings around the sides of a 5-inch pot well crocked and filled with sandy soil. Dip each pot into a bucket of water after cuttings are inserted and place under the hand-lights. If a little bottom-

which history has spoken. "Athene's Olive, or Dodona's Oaks" have not lived so long in story. It is nearly thirty centuries since King David said, "I in a house of Cedar, but the Ark of God dwelleth within curtains." Solomon, who knew every plant, "from the Cedar that is in Lebanon to the Hyssop that groweth on the wall," was only not wise in this, that he cut the Cedars, but did not, so far as history tells, ever plant where he had reaped. Still the Cedars flourished, the mightiest of all the trees, and the most inspiring to human imagination. Ezekiel must have seen them, with their roots spreading towards the snow torrents on the mountain-sides, for he says of the Cedar, "Thus was he fair in his greatness, in the length of his branches, for the waters made him great." And their growth was then the same as now, with flat and spreading heads. "His top," says the prophet, "is among the thick boughs." To the days of St. Augustine the Cedar was the type of pride and strength. "Cedar of Lebanon, whom God hath not yet broken," is his apostrophe to "overweening greatness tottering to its fall."

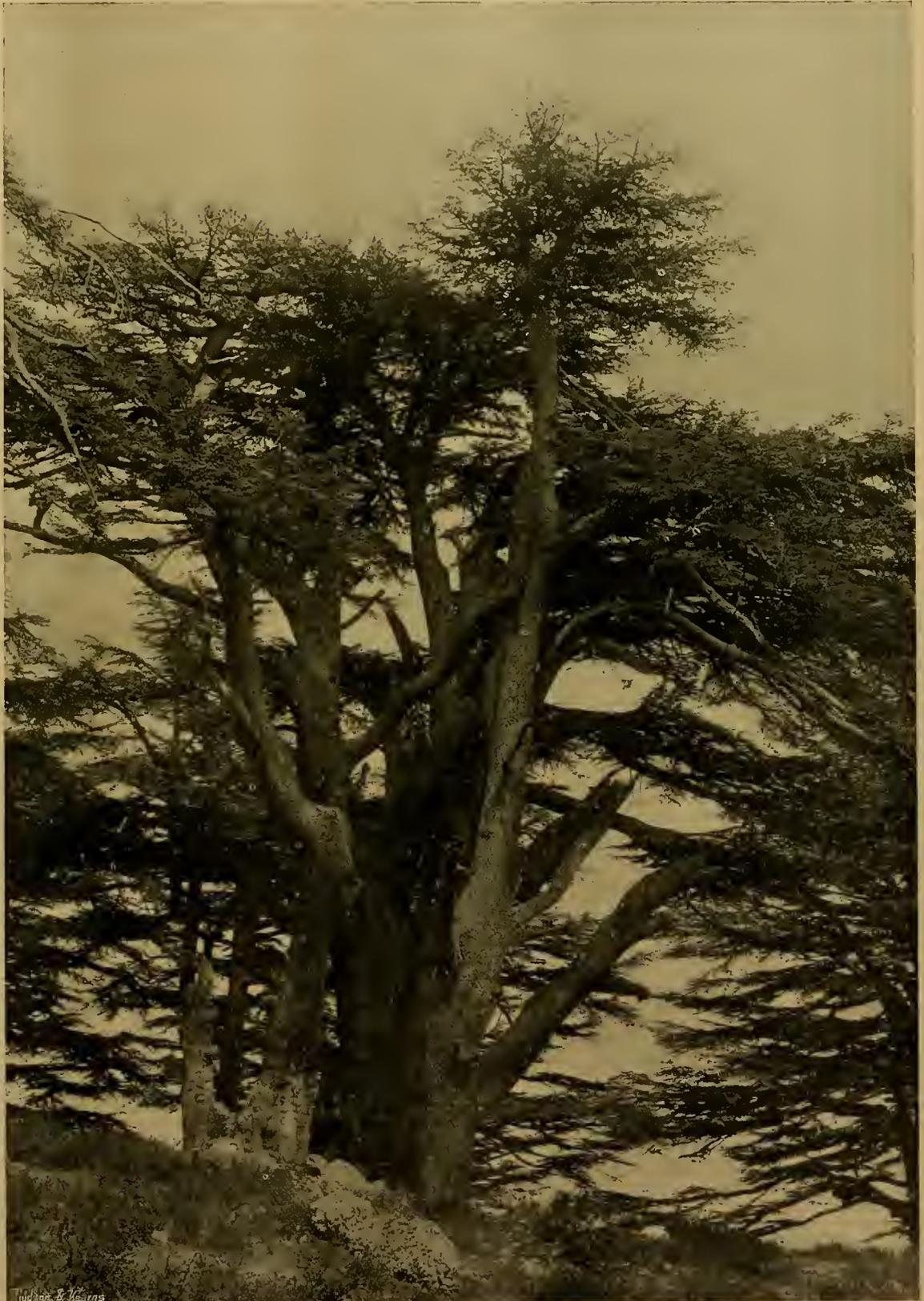
That the thought of the Cedar should have impressed beyond measure the imagination of the Christian West is not surprising. It was a tree which no European had seen, yet to which their one Holy Book made constant allusions. Though the Cedar flourished then, and survives yet on the Atlas Mountains and on a few ranges in Asia Minor, these were never visited, and scarcely known. But the tradition passed on from generation to generation that high on Lebanon there still grew these almost sacred trees, there, and nowhere else, as the world then thought, and continued to arouse men's curiosity and stimulate their interest. It does not appear that during the Crusades any European penetrated to the groves. The Lebanon lay in the enemy's country, and, further, was in possession of the Assassins, with their mysterious chief, the Old Man of the Mountains. Thus guarded by remote distance, and for a time by the presence of the murderous fanatic near the base of the mountains, the Cedars stood for centuries unvisited, and drank up the snow-waters with their roots, uninjured by the axe, or by the fires of wandering travellers, whose careless brands have more than once since consumed the groves of Hermon. Meantime, they still remained the most renowned natural monuments in the world. "The Arabs of all sects entertained a traditional veneration for these trees. They attributed to them not only a vegetative power which enabled them to live eternally, but also an intelligence, which caused them to show signs of wisdom and foresight similar to those of wisdom and instinct in man. They believed them to understand the changes of the seasons; that they stirred their

vast branches as if they were limbs, and could spread out or contract their boughs, inclining them towards heaven or towards earth, according as the snow prepared to fall or melt."

Perhaps the earliest account of a visit to the Cedar grove is that by Belon, who climbed the Lebanon in 1550 A.D. It will be interesting to

compare what he saw with the photograph he e shown of the surviving Cedars to-day.

"At a considerable height up the mountain the traveller arrives at the monastery of the Virgin Mary, which is situated in a valley. Thence proceeding four miles further up the mountain, he will arrive at the Cedars, the Maronites acting as



CEDARS ON MOUNT LEBANON.

guides. The Cedars stand in a valley and not on the top of the mountain, and they are said to number twenty-eight, though it is difficult to count them, they being only distant from one another a few paces. These the Archbishop of Damascus endeavoured to prove were those which Solomon planted with his own hands, in the quincunx manner in which they now stand. No other tree grows in the valley in which they are situated, and it is generally so covered with snow as to be only accessible in summer."

These gigantic Cedars, some of which are shown in the beautiful illustration of Solomon's Cedars here given, are fortunately not the only survivors. In one grove there were in 1832 nearly 500 younger trees. In 1836 it was noted that while the smallest of the ancient trees measured 36 feet 9 inches in circumference, there were forty younger ones measuring from 10 feet to 12 feet beneath the snows of Hermon.

The records of British forestry give the date at which the Cedar of Lebanon was introduced into England as the middle of the seventeenth century. If this is correct, the great Cedar of Childrey Rectory, near Wantage, in Berkshire, has strong claims to be one of the first three planted in England subsequent to 1641. The story is an interesting one. The rectory, a very ancient one, which drew such a large share of the proceeds of the three manors of Freethornes, Maltravers, and Rampayne in that parish, that they each conceded about a third of their land to the rector in lieu of his tithe, became the possession of Corpus College at Oxford, the last of the Corpus Rectors being the Rev. C. J. Cornish, who now holds it. In the later years of the reign of Charles I. Corpus College granted it to the first Oriental Scholar of the day, Dr. Pocock, who, according to an unbroken tradition, planted this Cedar from a cone which he had brought with him from Lebanon. Two other Cedars, now at Highclere, are said to have been raised from cones brought by him at the same time. Turning to Pocock's life in "The Dictionary of National Biography," where his planting this Cedar is mentioned, we find that there is every evidence to support the belief. He became an Orientalist when almost a boy, and at Oxford found in the Bodleian missing manuscripts of four gospels, and transcribed them into Syriac and Hebrew characters, adding, for the benefit of the less learned, a "popular" translation in Greek. Then he went out as chaplain to the Turkey Company at Aleppo in 1629, when he studied Syriac on the spot and also Ethiopian and Samaritan. On a subsequent visit to the East he purchased a number of Oriental manuscripts (now in the Bodleian), with such skill and discernment that Dr. Pusey remarked that the old Royalist Scholar had never once been taken in by a fraud or mistaken in his purchases. Archbishop Laud made him the first Professor of Arabic at Oxford. Then, in the evil days of the Royalists, Pocock went again to the Orient, and became chaplain to the Embassy at Constantinople. In 1641 he returned, and was appointed to Childrey in 1642. He probably brought the cones back in 1641, and, allowing a year to raise the seed in, that would give a life of 261 years to the Childrey Cedar. It is still in vigorous growth, and increases rapidly in size.

At the present time it measures 25 feet round at 5 feet from the ground, and the lateral spread of its branches is 40 yards, giving roughly an area covered of 1,600 square yards. Every year it shoots add 14 inches to the end of its lower branches, and last autumn the ground below was covered with the debris of its cones. The soil in which it stands is extremely rich, and under it are springs, so that it may truly be said of this tree that "the waters made him great." Perhaps the most extraordinary fact is that it has renewed and repaired a loss of certainly one-fourth of its principal branches in seventeen years. One night, when the present writer was in the house, a very late and very wet fall of snow descended. Wet snow is very heavy, and it overloaded the branches. All through the night the depressing sound was heard of huge Cedar boughs snapping with a crash like fog signals. Next morning the tree looked a perfect wreck. Eleven great boughs and many

smaller ones were smashed off, huge white splinters stuck out jaggedly everywhere, and tons of timber lay below. Part of a large paddock was fenced in with posts made from the smaller boughs, and the rest was sawn up for timber.

Yet in the succeeding years the growth of other branches—mainly the smaller ones which had no chance to develop before—was such that, except on one side, the damage is not very obvious. The tree has never been struck by lightning, and, contrary to general belief, all kinds of flowers grow beneath its branches. On the side from which the view is taken are beds of wild Sweet Violets right up to the trunk. Forget-me-nots, wild yellow Anemones, Oxlips, and Daffodils flower in the grass beneath the enormous lateral branches. Standing in the very centre of ancient gardens and lawns, it reminds one of the tree in Nebuchadnezzar's dream, when "the fowls of heaven dwell in the boughs thereof." At different times and seasons whole families of different kinds of birds simply live in this immense tree, which is a kind of city to them.

Its ancient and unbroken associations with Oxford and the Church are likely to endure. Planted by the old Corpus Scholar, who held Archbishop Laud's Arabic Professorship, duly described in contemporary biography by Dr. Fowler, the genial and learned head of Corpus College, cared for, and its boughs supported by the present Corpus Rector, it has passed, on the alienation of the advowson of the Rectory by the College, into the hands of the Rev. R. J. Walker, himself the son of a Scholar and Fellow of Corpus, the well-known Master of St. Paul's School.

CORRESPONDENCE.

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

POTATO RINGLEADER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was very pleased to read such a good account of this Potato in THE GARDEN from Mr. Wythes and Mr. Molyneux. I have grown it extensively as a second early and mid-season variety, but not for forcing, as I still think that Sutton's May Queen will take a lot of beating both for forcing early and for an earliest outdoor sort, being also very short in the haulm. The finest mid-season Potato with me is Reliance. Never have I had such returns from a Potato before as I am now lifting. It was good last season, but excellent this. I have had as many as twenty-six tubers from a single root all fit for table; when cooked it is first-rate. It turns out very clean with shallow eyes. Of course it may not do well in all soils, but here it is superb, and no one could wish for a finer Potato.

Rdg Gardens, Corwen.

J. HIGGINS.

GALEGA HARTLANDI BICOLOR GRANDIFLORA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice with much pleasure that some of your readers want to know the history of this plant, which you illustrated in THE GARDEN of December 26, 1903. To its further history I can add but little, only to mention that it is Furze-scented, most floriferous, and quite distinct from any known form. That it originated some ten years since at Ard Cairn goes without saying, that Mr. F. W. Burbidge was the first to call my attention to it some three years since, and that it appears in March with silver variegated foliage, which it keeps well into the month of May, then in June it sends forth in quantity blue and white bicolor blooms, the colour of the Wistaria. It is planted here as well as at Kew Gardens side by side with Galega patula, sent me by Mr. Watson. G. patula is quite a botanical species of no great value in comparison, as it very soon goes off to seed, while my plant never seeds, but continues flowering until late autumn. I have not tried it in

poor soil as yet, but plants potted up are of great value in the conservatory and for table decoration, in combination with Sweet Peas and the bloom of Rhus Cotinus is very effective.

Ard Cairn, Cork. W. BAYLOR HARTLAND.

YUCCAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Referring to Mr. D. B. Crane's notes on the flowering of Yuccas at Finsbury Park after so wet a season as last year, I may mention that here there are a large quantity of Yuccas which flower very freely, but this year I notice they are freer and the spikes are much finer, especially those in the wettest quarter; in fact, last summer and winter they were often under water, but they are in a very sunny and sheltered position, which I believe adds much to their freedom, as some I notice here in a more exposed part seldom flower.

Ruxley, Esher.

J. HILL.

CARPENTERIA CALIFORNICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am inclined to think that *Carpenteria californica* is hardier than is generally supposed. I have a good-sized bush which has stood for six years in an open border facing west, with a wall standing about 6 feet behind it. The soil is light and dry (chalk), about 300 feet above sea level, and Hertfordshire is a cold county. The shrub flowers profusely every year.

Foxholes, Hitchin.

T.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Here and at Hemsted *Carpenteria californica* has done well both on a wall and in beds, and has been out for the last three years. An old Oak here has much fungus growing round the base. Is it desirable to remove it, or is it a sign and not a cause of mischief?

Cranbrook.

MEDWAY.

[We should like the opinion of other readers who have been troubled with fungi in this way.—Ed.]

WHITE SWEET SULTAN THE BRIDE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 52 "R. D." writes in praise of this, and I can endorse all he says in its favour, having seen it growing in Messrs Jarman's nursery at Chard a few weeks ago. Nothing could have been fresher and purer than it was in the open nursery without the least shelter in the hot weather. The bed was a large one, the plants most vigorous, and literally covered with their blooms. I am quite of the opinion that it will be much sought after for floral decoration. Everyone values the yellow Sweet Sultan, but this fine new kind will be even more valuable. It occurred to me, as I looked at this mass of colour beside *Chrysanthemum segetum* of the brightest yellow, how much colour we may have in the garden in early summer from these beautiful things, that can be raised from seed at a very small cost.

J. CROOK.

EARLY APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As an early dessert fruit, ripening towards the end of July or early in August, none can vie with the variety Mr. Gladstone for so early in the season. On the Paradise stock it is a sure cropper, but should not be too closely pruned, as the tree bears on rather long spur growths similar to Lady Sudeley, another excellent dessert variety coming into use from the third week in August. The only fault with this is that the fruits are rather too large for dessert, but the flavour is very good, and the appearance most showy, quite crimson on the sunny side. Irish Peach is another excellent variety for August; the fruit is of equitable dessert size, and has a delicious aromatic flavour. Like the two above mentioned, the fruits are never better than when picked from the tree; they neither keep long nor retain their flavour. Slight pruning only is requisite to get good crops. Devonshire

Quarrenden is an old well-known variety, so well spoken of last year by Mr. Owen Thomas, and as a rule it bears well in most seasons. The fruits are flat, bright red in colour, and of rich flavour; it doubtless does better on warm soils than when planted on heavy land. It is fit for table during the latter part of August, and retains its flavour for a week or two after being gathered. Beauty of Bath is a very pretty Apple, and deserves more extended culture on account of its brisk flavour and free bearing when established. White Transparent, a fairly new Apple of much merit with a primrose skin, bears very freely, and is highly recommended for planting near the sea. There are one or two other early Apples, but the foregoing can be relied on for earliness as well as for flavour and free cropping. To keep sound fruit it is necessary to protect the trees from birds.

Boston, Devon.

JAMES MAYNE.

THE FRUIT GARDEN.

THE MEDLAR.

FEW trees are more picturesque than the Medlar, but it is valuable also for its fruits, which are highly esteemed for dessert when in proper condition. It is also delicious when made into jelly, cheese, or as a sauce for game. The trees, budded on the Whitethorn, are very hardy, and will grow anywhere. The branches require a fair amount of thinning, and a mulching of rich manure on the surface of the ground when the fruits are formed will repay the grower. Mention should also be made of the beauty of the Medlar tree when in flower. There are but three recognised varieties.

Dutch or Monstrous.—This has very large foliage and flowers, and produces the finest fruit. The tree has a weeping habit, and is not out of place on a lawn; it may be made to form an arbour. The fruits are gathered in October and left in a cool fruit room until Christmas to ripen; they are then much esteemed.

The Royal.—The fruits of this are not so large as those of the Dutch; the tree has smaller leaves, but as a rule bears better crops than the former.

Nottingham.—This has quite small, brisk, well-flavoured fruits, and they are very freely produced; the tree is of upright growth, and both branches and foliage are thin.

NOTES ON OUTDOOR NECTARINES.

For some reason or other the Nectarine seems to be grown less than any other stone fruit. Some say it does not swell like the Peach, and others that it is dry and flavourless. Such cannot have tasted finely-grown fruits of the best varieties or they would assuredly say there was no fruit better. Its name is derived from nectar, the drink of the gods, and its lusciousness and honeyed flavour well justify it. The dictionary describes it as a nectarine variety of Peach with a smooth fruit. It is said to be a sport from a Peach, and there are well-authenticated cases of both smooth and downy fruits on the same branch, while Peach trees have been raised from Nectarine stones, and *vice versa*. The Nectarine is not quite so hardy as the Peach, and requires more sun to bring it to perfection, for whereas late September, or even early October, Peaches are often a success outdoors in the South of England, it is of little use growing Nectarines under the same conditions which ripen later than the first or second week in September. As it requires so much sun to perfect it, it is not advisable to plant it on any but a south wall, except with the very early sorts, which may be planted on a south-west, or even on a south-east, wall. The soil best suited to the Nectarine is a good deep loam well drained, and if it is calcareous so much the better. In planting it is a good plan to dig a hole 3 feet deep and 5 feet or 6 feet wide, and put a barrowload of mortar rubbish at the bottom, this serving both as drainage and as food for the trees for years to come. The preparation of borders often advocated

is both costly and unnecessary on any fairly favourable soil, unless exhibition fruits are wanted. This is speaking from the amateur's point of view. Some basic slag should be mixed with the soil when filling up the hole, especially with the soil at the bottom, Nectarines needing a great deal of solid matter for the stoning of the fruit. Early November is the best time to plant, and a good thickness of strawy manure should be put over the roots for the winter and removed in March to let the sun warm the soil, as the growth of Nectarines begins early.

The pruning and disbudding of Nectarines—both operations equally important—require a good deal of care and attention. Soon after the fruit is set in the spring all ill-placed shoots, and many others where they are too thick, should be rubbed off, but not all at once, as it gives the tree a check, which may result in unhealthiness, through congestion of sap. As a general rule, on fully-grown trees all the young shoots on a previous year's shoot may be rubbed off, except the one at the extremity to draw up the sap to the fruit and the one at the base. The terminal shoot may be pinched at about the fifth leaf and the basal shoot at 12 inches or 15 inches, or earlier if room is limited. The old shoot is cut away at the final pruning in the autumn just above the basal shoot, which is nailed in its place.

As the summer advances, say, about midsummer, all the young shoots should be tied in so as not to shelter the fruit, and also, and even more important, to give the young wood the benefit of the radiation of the heat from the wall to ripen it. When blossom fails to set or fruits fall off at the stoning period it is generally because of the imperfectly ripened condition of the wood. Until the tree has attained its full size some modification of the above system of pruning is necessary, the extension or terminal shoots (sometimes two from the same shoot) being allowed to grow their full length unless they are too gross, when they may be pinched anywhere between 1 foot and 2 feet. If laterals appear on the current season's growth they should be pinched at one leaf and the secondary laterals similarly treated, the whole of the laterals being cut back close to the stem at the autumn pruning, where the buds at their base have probably developed into fruit-buds as the result of the pinching. Beware of cutting back strong-growing shoots in the summer, as they will probably either gum or die back. They should be pinched before they get too strong.

Thinning the fruit is of the utmost importance. As soon as it is set all badly placed fruit should be rubbed off, and when it gets as large as a Pea it should be further thinned, leaving only one, and that the biggest, on the weak and fairly strong shoots, and two on the very strong shoots. It is very bad policy to leave too many fruits, as many



FRUITING SHOOTS OF THE MEDLAR.

of them will only fall when they should be beginning to ripen or before, and none will attain any size. People speak of leaving it to Nature, but Nature's object is to produce seeds, and ours is to produce luscious fruit. Another disadvantage is that a very heavy crop of indifferent fruit one year may be at the expense of the next year's crop, through the exhaustion of the tree. It is better to have a moderate crop of fine Nectarines every year than a heavy crop of small fruits one year and none the next. Some prefer to leave the final thinning till after the stoning period, fearing more may drop then; but if the tree is healthy, thinning is done early, and the tree is well fed, there is little fear of this.

As soon as possible after the fruit is picked the tree should be pruned and nailed up for the winter, except in the case of the very early Nectarines, as the last week in August is soon enough for a final pruning. Some advise the complete unnauling of the trees every autumn, and the destruction of all old shreds. Where shreds are used this is doubtless an excellent plan, and it does not mean so much extra work as it appears to do. A better plan is to tie the branches to the nails with raffia, thereby affording less harbourage for insect pests, at the same time increasing the facility of releasing the branches from the walls. Early pruning has two advantages. None of the energy of the tree is wasted in maturing useless wood, and the young wood, by being nailed in early, and having plenty of sun and air by reason of the removal of all surplus wood and foliage, has a better chance of ripening. The proper ripening of the young wood

is one of the principal things to be looked to in Nectarine culture, hence the insistence upon it, failure of the blossom to set and the fruit to stone, as pointed out above, generally being the consequence of insufficient ripening of the wood. The young shoots keep on growing till so late in the season, and make so much leafage, that they need a sunnier clime to ripen them properly. Especially is this the case if young trees, before they have borne much, are given animal manure, when the growth is very sappy, even at the end of the summer, and is then subject to gumming, and rarely produces any fruit.

ALGER PETTS.

GARDENING OF THE WEEK.

INDOOR GARDEN.

CALADIUMS.

MANY of these are now beginning to show signs of desiring to go to rest, and therefore will not require quite so much attention. Those varieties that were started early will naturally have obtained their full development, and with these gradually reduce the supply of water to the roots, and place them in an airy position until the whole of their leaves have died away. Plants that were started into growth later will for a time keep their colouring, and to the roots of these give a dose or two of liquid manure.

Caladium argyrites and *C. ornescens*, when given proper attention, will continue to form crowns and to cast up new leaves until the end of the season, consequently the supply of water to their roots need not be reduced until quite the end of the growing season, viz., October.

A mistake too frequently made in preserving the bulbs of the two last-named varieties through the winter is, first, in resting or drying off the foliage too quickly; and, secondly, in placing, during the winter, the bulbs in a temperature that is much too cold.

POINSETTIAS.

These have in a general way been receiving very good attention, and those that were propagated early, if not already done, are quite ready to be placed in their flowering pots. Very large pots are unnecessary. Six, and in very few instances are 7-inch pots required.

A cool airy temperature, with the plants elevated well up to the glass, is necessary, and give shade from strong sunshine for a few days after repotting, as well as syringing to keep their surroundings moist. In a week or two's time a dose or two of liquid soot and manure water will help to build up the strength of the plants as well as support large bracts. Old cut-back plants may be given 8-inch and 9-inch pots, and with the compost for these mix a liberal amount of dried cow manure. For dwarf plants continue to propagate, the beginning of September being the latest period at which cuttings can be inserted to produce plants that during the present season can be expected to do any good.

ALLAMANDAS

that have flowered early would ripen their growth better if they were placed in a structure that is cool and well aired and sunny. No stimulants, liquid or solid, should be given to their roots, and the supply of water generally should be greatly reduced. Plants that have made a later growth and are now in flower may be given stimulants to help in the proper development of the flowers, as well as to strengthen and improve the condition of the plants generally.

GESNERA HYBRIDA.

These are excellent plants for flowering during the dull winter months, as not only are their varied-coloured flowers effective and pretty, but their leaves also are very pleasing. If not already accomplished, these should be given their final shift into flowering pots, the compost best suited being fibrous peat, with two-thirds loam, a small proportion of dried cow manure, and coarse silver sand. At all times care in applying water to their

roots is important; but in a moist, moderately warm atmosphere they will thrive luxuriantly.

J. P. LEADBETTER.

The Gardens, Tranby Croft, Hull.

KITCHEN GARDEN.

POTATOES.

THE weather has now become more showery, and it is unlikely that another long spell of dry weather will again set in. In several gardens I have noticed Potato haulms with a suspicious appearance, showing that the disease only requires suitable weather for its full development. Midseason varieties such as *Snowdrop*, *Windsor Castle*, and many other sorts ought to be lifted at once, especially where the tops show signs of ripening or where disease is prevalent. Choose a good day for lifting, and allow the crop to remain on the ground for a few hours to dry. Medium-sized tubers should be picked out for seed, always keeping more for this purpose than may be actually required to provide against loss by disease. Those for seed may be spread out in the open to green or placed in a dry, cool shed. Those for immediate consumption should be placed in a dark room or covered with soil in the open. Clear the ground of the haulm, weeds, &c., immediately, and if diseased burn them. If the vacant ground is not required for another crop this year it should be levelled and made as tidy as possible.

GLOBE ARTICHOKE.

This crop is now nearly over. All flower-stems should be cut down to the ground. If young heads are still showing they also should be removed unless they are still in request for the kitchen. This will do much to strengthen the plants. Now is a suitable time to apply a dressing of some reliable chemical manure, or, what is perhaps better, a rich top-dressing of good farmyard manure. This is the season for making another plantation. Where young growths are coming up from the parent plants they should be lifted, and if set out on well-prepared land they will establish themselves before the winter begins. If the garden is cold and damp the young growths should be potted and given the protection of a frame during the winter months.

LEEK.

Those planted out in specially prepared trenches and intended for competition will require special attention. Earthing up should be done frequently, a little at a time, and a liberal amount of stimulants must be given. Leeks for the main supply planted out in late July have now begun to grow. The hoe may be worked between the rows to fill in the holes made by the dibber. If the land is rich, no chemical manures need be given unless extra large roots are required.

CABBAGE.

The last sowing should now be made on a warm border. These may be used for planting out in plots for spring use, or may be transplanted into nurse-beds for spring planting. Winter Cabbages are now growing rapidly, and if in exposed positions should be well earthed up to prevent damage by wind. Blanks may still be filled up. If good strong plants are available and lifted carefully with a trowel they will experience little check.

Hoptoun House Gardens, THOMAS HAY.
South Queensferry, N.B.

FRUIT GARDEN.

PEACHES AND NECTARINES.

THESE are generally considered our most tender and uncertain hardy fruits. This year the trees are carrying heavy crops of fruit, which promise to be above the average in size. *Alexander*, *Waterloo*, and other early varieties growing on south walls, which have now been cleared of fruits, have produced fine specimens of high colour and good flavour. These trees must be syringed with an insecticide if necessary to clear them of any insects, and freely syringed every afternoon along with later trees which are swelling their fruit. The growths on later trees are clean and healthy; trees carrying heavy crops should be well mulched and freely watered with liquid manure. Stimulants must be withheld from other trees only carrying

light crops or making too much wood, but at the same time they must have plenty of clear water. Tie in the shoots as required and keep them close to the wall, give them plenty of room for full development of their leaves, 6 inches being none to much to allow between the shoots. Keep the laterals closely pinched, and pinch out the points of any very strong shoots to keep the trees well balanced. Keep a sharp look out for earwigs, woodlice, or other insects pests, and endeavour to hold them in check by some of the many methods employed for reducing them. Remove or put aside any leaves which shade the fruits, which must be protected from birds and squirrels with netting; the latter are most troublesome here. Take notes of any trees which are not fruiting well or making too much growth, to be attended to later by being root-pruned. Any young trees which have not yet fruited should have any weak shoots removed and strong growths stopped to secure an even flow of sap over the whole tree.

APRICOTS.

As soon as the trees are cleared of fruit give them a thorough cleansing with the garden hose to rid them of insects. Do not allow the trees to suffer for want of water. Keep the laterals in check, and remove any strong growths not required. It is better to remove them at this season than to prune the trees severely in winter. Pay attention to young trees and encourage moderate growth by keeping the roots in check by root-pruning early in October if necessary.

PLUMS.

A second growth will have been made on trees which were stopped early. This must now be pinched back. Where the trees were well mulched and watered in much finer fruits may be expected for dessert. Protect the fruits of the finest varieties with hexagon netting or other material to keep off birds and wasps, or the best fruits will be spoilt before they are ripe.

STRAWBERRIES.

Any Strawberries that still require planting should receive attention as soon as the ground can be got ready for them. Early planting, which means finer fruit, well repays the little extra labour bestowed upon the plants at this season. Strawberries require a good depth of fairly heavy soil, freely manured for the preceding crop. A good crop to follow is early Potatoes, as these require the ground to be well cultivated during the summer, and very little preparation is necessary. In early planting the roots become well established and the crowns well ripened before the frosts.

Impney Gardens, Droitwich. F. JORDAN.

FLOWER GARDEN.

ROSE CUTTINGS.

In many instances Roses grown on their own roots are largely superseding those budded on the *Manetti* and other stocks. When advocating the own-root method of culture in preference to the older budded system, it is usual to bewail the comparative slowness of growth of such plants during the first two years, but this fault can with equal truth be found with budded plants.

Cuttings of many Hybrid Perpetuals of other strong-growing Roses root freely if inserted in the open ground in the autumn. But to be successful with Teas and any delicate varieties it is necessary to strike the cuttings under cover. When possible the cutting should be taken with a heel of old wood—a shoot from which a flower has previously been cut makes a capital cutting. The heel should be trimmed and the lower leaves removed; if the foliage is at all luxuriant it is advisable to cut off a few of the remaining leaves, usually the centre lobe of the leaf is sufficient. The best results are obtained when rather deep pots are used, so that the cutting may be inserted a good proportion of its length. The soil used should be of a sandy nature, and it is essential that the cutting be firmly inserted, and that it rests on its base. Give a good watering, and after the pots have drained place them on a gentle bottom-heat, admitting air for a short time daily, and wiping all moisture from the glass. After having taken the cuttings,

many growers prune the plants which have flowered to three or four buds, and a crop of late flowers is frequently the result.

ROUTINE WORK.

This consists of the daily round of cleaning and tidying. Weeds and dead flowers must be frequently removed. Although grass does not grow nearly so fast as during the spring and early summer, mowing must be done fairly frequently to keep the lawns trim. While the weather keeps hot and dry the knives must be set higher than usual or the lawns will burn quickly. As the cooler and moister weather sets in the knives should be gradually lowered again. Turf which was laid late in the spring has cracked badly in places. The crevices should be filled up with fine soil and sown with grass seed.

With the exception of *Calceolarias* and *Gazanias* the bulk of the bedding cuttings should be inserted during the present month, for early struck cuttings pass through the winter with few losses. Cuttings of *Pelargoniums* must be taken as opportunity occurs, but there are plenty on such plants as *Pansies*, *Pentstemons*, and *Antirrhinums*. For standard light-flowered *Heliotropes* I prefer to pot into 3-inch pots sufficient plants from the earliest struck batch. These kept growing through the winter, and potted on when necessary, are less trouble than old plants, and give equal if not better results, for when planted out into the beds they invariably grow away much faster than old plants.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

ORCHIDS.

SOBRALIAS.

In a degree these may be termed unpopular on account of their long, thin growths and the short time the individual flower lasts, yet when a well-cultivated plant is seen in flower it never fails to command admiration, and if the hybridist can reduce the length of growth—and I have every hope that such will be the case in the near future—then the chief objection to these lovely Orchids will be removed. Although the individual flower only lasts a few days, the quantity produced by a strong reed makes the flowering season of a *Sobralia* a long one. In most cases the season is past and the second batch of young reeds are well advanced, enabling potting or dividing being done now in a compost of two parts fibrous loam, the other part made up of peat, leaf-soil, and sphagnum in equal quantities, mixed together with a liberal sprinkling of small crocks and sand. The pots should be filled one-third with clean crocks, using the largest possible, over which place some lumps of turfy loam. Pot rather firmly, keeping the compost below the rim of the pot and the crown of the plant on a level with the compost.

In the case of large specimens that are beginning to show signs of exhaustion, and further pot room cannot be given, divide before deterioration is too pronounced. The greatest care is necessary in this work. A certain number of roots must be sacrificed, but with care the outer ones may be saved. All damaged roots should be cut off above the broken point. The divided sections may then be remade into a specimen or potted up in smaller pots at the grower's discretion. The latter course is preferable, the best specimens being those obtained by potting on young vigorous plants. Those plants that are growing freely, and are as yet not of such size that further pot room cannot be given, should be given a shift, not disturbing the ball of the plant beyond liberating a few of the outside roots to enable them to quickly enter the new material. Never allow the reeds to become crowded as the new growths develop. The ones that have produced flowers must be removed gradually; then no check is given. If the situation afforded them is not to their liking, beyond making indifferent growth, thrips will be found very troublesome. A moist corner in the intermediate house is the most suitable, pure air and abundance of atmospheric moisture being essential. Overhead spraying is helpful on bright days during the greater part of the year. Newly-potted and especially divided plants require very careful watering till the roots have well

started again, and during the dull, short days of winter they must be allowed to become dry before more water is given. When grown in the intermediate house temperature at other seasons, strong established plants will take copious supplies.

CATLEYA BOWRINGIANA.

This grand species may now be potted, using a compost of fibrous peat, two parts, the same of sphagnum, and one part of leaf-soil, mixed with some small crocks and coarse sand. The drainage given should be ample; make it up of a few crocks, over which place some rhizomes. On account of the deep-rooting nature of the plants pots are preferable to pans. They are well suited when given a position with the long-bulbed *Catleyas*. It will now be necessary to constantly watch that water does not accumulate in the bracts on the sides of the young growths, so overhead spraying on this species should now be discontinued.

W. P. BOUND.

Gatton Park Gardens, Reigate.

BOOKS.

Smith's Chrysanthemum Manual.
This is a handy little cultural treatise recently



SCOLOPENDRIUM VULGARE CRISPUM.

(Fronds 3 feet long.)

published by Mr. Elmer D. Smith, formerly the secretary of the Chrysanthemum Society of America, and is the result of a long experience with the flower. It is a neatly-got-up work in paper wrappers, with several illustrations in black and white, but, of course, the literary matter is more particularly intended for growers in the States. It is published by Nathan Smith and Son, Adrian, Michigan, U.S.A. Mr. Smith divides his work into fifteen chapters, and deals with every phase of Chrysanthemum culture likely to interest American growers. Thus we find chapters on the following subjects, viz.: History, stock plants, propagation, specimen plants, miscellaneous plants, packing plants, exhibition blooms, commercial flowers, insects, diseases, seedlings, sports, preparing exhibits, exhibitions, types, &c.

Bulletin de la Société Française d'Horticulture de Londres.—Mr. George Schneider, the much-respected president of this society, may well feel proud that he has been able to see the fifteenth annual issue of the Bulletin of the French Horticultural Society of London. A

long and prosperous career has attended the society, and this largely the result of our old and valued friend's exertions in the interest of his young fellow-countrymen, who come to England to learn our language, and in most cases our business methods. The membership list grows apace, and happily in proportion the financial position also improves, a fact that cannot be said of every horticultural society we know of. It is commonly said by many of our Continental friends that the English are essentially a practical people, but it is evident that the officials of the French Horticultural Society, if not English, have at any rate learnt to be practical in the management of their society, and the results, as set forth in this year's bulletin, prove it in the highest degree. We may point out, as it is not too widely known, that besides finding situations for young French gardeners in England, the society is also open to find places on the Continent for young English gardeners, several of whom have been placed abroad. The bulletin is in the same form as usual, an excellent portrait of the late M. Godefroy-Lebeuf forming the frontispiece, with a short biographical notice from the pen of Mr. Schneider. Reports of the monthly meetings and the text of the papers read there are, as usual, given in the body of this always interesting publication, which we hope may long continue to make its annual appearance. We notice in the lists of members several important additions, horticulturists of note on both sides of the Channel being continually added in large numbers.

THE FERN GARDEN.

A FINE HART'S-TONGUE.

THE accompanying illustration represents a splendid specimen of one of the frilled or crispum varieties of this protean species, and gives a capital idea of its value as a decorative plant. Curiously enough, this plant and a row of others not shown, belonging to both the cristate and frilled sections, are all growing in the poorest possible soil, consisting mainly of coarse gravel. This is due to the fact that the cold fernery in which they are growing was built out from the dwelling-house over a narrow bed and a gravel path, which were left undisturbed, except that a row of large red tiles were bedded into the gravel to form a better path. Some time afterwards, having some odd divisions of the Hart's-tongues, these were dibbled into the said gravel just under the edge of the staging which was erected over the bed, and to our surprise they immediately commenced to make strong growth, and at the present time are all very much finer and robust specimens than any we can attain by careful pot culture. A curious fact is also that, despite their robust growth, they have little root-hold—so little that the specimen illustrated fell over on to the tiles when watered overhead, when it was seen that it was only sustained by a mat-like mass of brown aerial hairy roots spread over the surface and between the stones of the gravel, these evidently sufficing owing to the damp aerial conditions of a glass house. From this it may be deduced that the more such roots can be fostered by an open, lumpy compost the better. Further to test this point we installed an equal number of choice Hart's-tongue seedlings in two pans—one filled with a spadeful of gravel just as swept up from the garden paths, and the other with the best compost we could make of the ordinary kind. The result, however, is that while the seedlings in the gravel have done very well, those in the richer compost have done somewhat better, which we attribute to the shallowness of the pan and consequent large superficies of soil, which favoured aeration better than smaller, deeper pots can do, and thus permitted the plants to benefit by richer soil in this case. The fronds of the specimen depicted are over a yard long, and the frilling, as will be seen, is beautifully developed. It is clear, therefore, that the Hart's-tongue varieties are

peculiarly adapted for rockwork in cold conservatories, and in view of their great diversity both of size and form, ranging from a few inches up to a yard and more, and their perfect hardiness and evergreen nature, we cannot too strongly advise their introduction into such positions. There are at least a score of different crispums finely frilled and even with fimbriated lacy edges, plus in some cases beautiful tassels as well, so that a collection restricted to this section alone would well pay for the accommodation afforded.

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

SOCIETIES.

NEWPORT AND COUNTY HORTICULTURAL SOCIETY.

THIS society was favoured with a fine day on the 4th inst. to hold its annual show, the place being King's High Field, Newport. Larger shows have been seen at Newport, though it was a good average one, the various classes being usually well filled; the exhibits were generally very good. The trade also did much towards making the show the success that it was, by filling a large space with choice subjects.

PLANTS.

For six ornamental foliage plants the first prize went to Mr. Duff, gardener to Mrs. Williams, Brynglas, Newport, who staged large plants of *Kentia fosteriana*, *Phœnix rupicola*, and *Sabal blackburniana*; Mr. Carpenter, gardener to J. Buckley, Esq., Llanelly, was a near second. For six stove and greenhouse plants much the best were shown by Mr. Lockyer, gardener to J. C. Hambury, Esq., Pontypool Park, who, amongst other things, staged a magnificent plant of *Ixora Duffii* (which was awarded a silver medal offered for the best plant in this class); Mr. Harris, gardener to G. F. Colbourne, Esq., was placed second. *Caladiums* were splendidly staged, Mr. Lockyer being placed first with six large fresh specimens; Mr. Powell, gardener to Colonel Wallace, Newport, second. Mr. W. J. Jones, gardener to R. P. Williams, Esq., led with six zonal *Geraniums*, and staged nicely-flowered, medium-sized plants. *Gloxinias* made a creditable class, Mr. Pegler having the best.

GROUPS.

Several classes were devoted to these, and being arranged close together they made one of the most imposing features of the show. The chief class, which was for a group in a space of 11 feet by 11 feet, brought two exhibits of almost equal merit, Mr. Carpenter, who is an old exhibitor in this district, however, secured the leading position, while Mr. Wood, gardener to H. Oakley, Esq., was the other exhibitor. Each of these exhibitors arranged graceful, effective groups, and employed suitable plants for the purpose. A group in a space of 50 square feet tempted four exhibitors, Mr. Powell, gardener to Colonel Wallace, being given the leading award, closely followed by Mr. Harris, gardener to G. F. Colbourne, Esq. For a similar group in 25 square feet, Mr. Jones, gardener to R. P. Williams, Esq., was first, and Mr. Wiggins second.

A class for a group of tuberous *Begonias* in 25 square feet was provided, and four good groups were arranged. The leading one was arranged by Mr. Mitchell, gardener to W. J. Orders, Esq.; Mr. Pegler, gardener to M. Morday, Esq., being placed second.

ROSES

were well but not largely shown, the first prize in the chief class (twenty-four varieties) was taken by Mr. S. Treseder, The Nurseries, Cardiff, his leading blooms being *Marchioness of Londonderry*, *Captain Hayward*, *Alfred Colomb*, *Gustave Piganeur*, *Charles Lefebvre*, *Dr. Andry*, *Mrs. J. Laing*, *Marie Rodocanachi*, and *Ulrich Brunner*; Messrs. Jaman and Sons, The Nurseries, Chard, Somerset, were a good second. Mr. S. Treseder was again placed first in a class for twelve Teas, and staged good blooms; Mr. W. Treseder, Cardiff, was a good second.

CARNATIONS.

For twelve blooms Mr. W. Treseder was first with large good blooms, slightly past their best; Messrs. Lupin and Sons were second. A collection of cut flowers of herbaceous plants, Lilies, &c., in a space of 12 feet by 3 feet was arranged by Mr. W. Treseder, who staged a choice selection, and was the only exhibitor. Mr. Bathurst, Iron Acton, had the best twelve glasses of Sweet Peas, staging leading varieties, as did also His Honour Judge Williams, and Messrs. Jaman and Sons, who were respectively placed second and third. A class for Sweet Peas arranged in a space of 9 feet by 3 feet was well filled by fine exhibits. Mr. Bathurst was again first, and Mr. Jones, Stow Hill, Newport, second.

DINNER TABLE DECORATIONS.

These filled a tent and attracted much notice, as they worthily deserved to do; a class for a round table laid for eight persons attracted seven exhibitors, of which Mrs. Brook Gratta had the best, and Mrs. Hollingdale the second. Tables of 4 feet by 3 feet also attracted the same number, and of these Mrs. Woodcock was placed first and Miss Dawson second. The exhibits in the above classes were really creditable displays, and the leading one greatly so.

FRUIT AND VEGETABLES

were in many instances well shown. The collection of the latter, for which Messrs. Sutton and Sons, Reading; Messrs. Wheeler and Son, Gloucester; Messrs. Carter and Co., High Holborn, London; Messrs. Garraway and Co., Bristol; Messrs. Clibran and Sons, Altrincham; and Mr. C. H. Thomas, Newport, offered special prizes were in most cases well contested.

There were several exhibits not for competition. Messrs. Lupin and Sons, Newton Abbot, had a fine display of Carnations and other cut flowers, for which they were awarded a gold medal. Silver medals were awarded to the King's Acre Nursery Company, Hereford, for a large exhibit of Roses; and to Messrs. Dennis and Co., the Floral Hall, Newport, for bouquets, vases of cut flowers, wreaths, baskets of fruit, &c. Messrs. Jaman and Co., staged Sweet Peas, Roses, Cactus Dahlias, herbaceous plants, *Begonias*, &c.; Messrs. Clibran and Sons, a large collection of herbaceous and other cut flowers; and Mr. E. H. Jones, Newport, Carnations, *Begonias*, *Crotons*, *Palms*, &c., while Messrs. Garraway and Co., Clifton, Bristol, had a good group of miscellaneous stove, greenhouse, Fern, and other decorative plants.

LLANELLY HORTICULTURAL SOCIETY.

THIS society recently held its annual show in the Market Pavilion, which affords ample space for gatherings of the kind, and on the occasion a very effective display was made, though it was said good as the show was better have been held at Llanelly. If this has been the case it certainly reflects great credit upon the officials and exhibitors, for the surroundings of Llanelly do not strike one as being, to say the least, favourable to horticulture. The society is probably endowed with ample pecuniary means; be this as it may, a good show was held, and everything connected with it appeared to pass off in a most satisfactory manner. Mr. Carpenter, gardener to W. J. Buckley, Esq., Penyar—a well-known South Wales exhibitor—was one of the chief prize winners throughout. Mr. Barnes, gardener to E. Trubshaw, Esq., Acllybrau, was also a most successful exhibitor; also Mr. Lucas, gardener to C. W. M. Lewes, Esq., Stradey, Llanelly, Mr. J. Williams, Mr. George, and Messrs. J. and E. Jones.

There was only one class for groups, viz., in 100 square feet, and two capital arrangements were made, the best, a light, bright, graceful one, was set up by Mr. Barnes. Mr. Carpenter, who was lately placed first at Newport and second at Cardiff, had on this occasion to take the second place. He had, however, an effective and well-arranged group.

Cut flowers were extensively exhibited, many and very varied classes being provided. Sweet Peas, as is now commonly the case, made an imposing effect. The winning exhibitor in the leading class, viz., twelve glasses distinct varieties was Mr. J. Cleaves, who was closely followed by Mr. Wilkins. Cactus Dahlias made another excellent class, Mr. W. Treseder, Cardiff, who was first for twelve sorts, staged a fine set of well-finished fresh blooms. Mr. Treseder was also first with show Dahlias.

TRADE CLASS.

For the best trade exhibit to consist of plants, cut flowers, fruit, and vegetables, or the whole combined, a silver cup, valued at 25 s., was offered as a first, and the Royal Horticultural Society's silver-gilt Flora medal as a second prize. Two very good collections were arranged, the leading one by Mr. W. Treseder, who had an excellent collection of herbaceous cut flowers, Cactus Dahlias, Carnations, zonal *Geraniums*, *Crotons*, *Palms*, *Ferns*, &c., together with some dishes of vegetables and fruit. Messrs. Parsons and Co. of Swansea, who were the other exhibitors, staged a fine group of *Gloxinias* in pots, backed by *Gladioli* in great variety, *Palms*, and *Ferns*.

Table decorations were very pleasing, Miss T. Evans, Llanganek Park, was first.

Fruit was generally fairly well staged, Mr. Hill (gardener to J. Mayberry, Esq.), Mr. Lucas, Mr. Barnes, Mr. Carpenter (the only exhibitor of Pine-apples), Mr. Runnalls, Mr. Wilkins, Mr. J. C. E. Jones, Mrs. Speck, and Mr. T. Williams being the principal prize takers.

THE BRITISH PTERIDOLOGICAL SOCIETY.

THE usual annual meeting of this society was held at Bowness-on-Windermere, on Monday, the 1st inst., when, owing to the unavoidable absence of the president (Dr. F. W. H. Stansfield of Reading), Mr. Charles T. Druery, F.L.S., V.M.H., one of the vice-presidents, took the chair. Both the secretary's and treasurer's reports demonstrated the success of the association financially and numerically, and as an item of the formal business of the meeting Mr. W. H. Phillips of Belfast was elected president for the coming year, Dr. Stansfield's professional duties having induced him to resign. Mr. Phillips, ranking as he does as one of the pioneers of the cult and the finder of a number of the choicest varieties, is undoubtedly peculiarly qualified for the position.

Mr. Druery, though unprepared for a formal address, emphasised the particular points which render the British Fern cult of special interest. In no other branch of horticulture is it possible to accumulate and exhibit splendid collections of distinct and beautiful varieties wholly and entirely independent of exotic or foreign introductions. For some reason British air seems to inspire Nature with novel ideas in the Fern direction, so that we are constantly being enriched with the results. He furthermore pointed out that, thanks to the careful records kept for the last half century and more, a mass of information has accumulated which is being recognised as of great value in connexion with the vexed question of variation and its laws. Obviously it is not dependent upon culture, as many thought, since all the marked types originate wild. The recent results of Professor Farmer's research, and embracing the discovery of an analogy between the forms of the cells in cancer and that of abnormal reproductive cells in Ferns, were also touched upon as additional evidence that the study of Ferns in their varietal forms could lead to results of immense value apart from the mere acquisition of more and more beautiful ones. Mr. Druery then read a paper on the British Polypodies, which will eventually appear in the society's report. A number of fronds and plants were exhibited for name, and among the latter was a beautiful new variety of the Hard Fern (*Blechnum spicant*) found in the Black Mountains, Ireland,

by Mr. W. Porter. This has a heavy flat foliose crest, divided into three on the lines of the Prince of Wales's feathers, and was consequently named *B. s. tricapitatum* Porter, and given a certificate of merit. Mr. Alexander Cowan exhibited fronds of a fastigate form of *L. dilatata* found in Scotland, another of Nature's novelties, and quite distinct from any known variety; *L. d. fastigiata* was the name given thereto. The society then resolved to meet at the same place and time in 1905, and with a hearty vote of thanks to the chairman the function concluded.

HASTINGS HORTICULTURAL SOCIETY.

AUGUST 10.

AFTER two years of financial failure the above society has succeeded in holding a successful show, having this year amalgamated with the Amusements Association. The show was considerably better than those of several previous years, three large tents being well filled, that portion set apart for cut blooms being by far the best, Mr. Alfred Gadd (gardener to P. A. Eagles, Esq., Meophams Bank, Hollington), Mr. James Duke (gardener to Mrs. Stone, Castleham, Hollington), Mr. E. Seymour (gardener to J. H. Upson, Esq., Hollington Park, St. Leonards), Mr. G. Grigg (gardener to the Earl of Ashburnham, Ashburnham Place), and Mr. W. Peters (gardener to Miss Fenrhyn, Holmhurst, Baldslow) were the chief prize winners.

The Dahlia classes were scantily filled, but what there were were good. Messrs. James Stredwick and Son, Silverhill Park, St. Leonards, were first for twelve bunches of Cactus, six in a bunch, showing chiefly new unnamed varieties, notably white, and a new one named Radium, of very beautiful colouring, and two striking pink flowers. Mr. W. Peters had the best twelve bunches of Pompons, six in a bunch. Messrs. W. Apps and Son showed a fine lot of hardy perennial and bulbous flowers in twelve bunches, followed by another fine collection from Mr. W. Peters.

Sweet Peas in twelve bunches of twenty-five spikes were a feature of the show, Mrs. Brewer, The Oast, Beckley, taking the lead with a beautifully clean and tasteful lot of bunches.

As is usually the case at Hastings the contest for the table decoration prizes was very keen, and this year Mrs. Jenner, Beaufort Lodge, carried off the first prize.

Fruit was not well shown, but creditable Grapes were on view. Mr. G. Grigg and Mr. J. Gore were the principal winners. One of the best exhibits in the show was that of Mr. J. Gore, a collection of ten dishes of fruit, his Grapes, both black and white, being very good.

Probably the most severely contested class in the show was that for collection of Potatoes, six varieties of nine each, to be correctly named, first prize a silver medal and 10s. This brought up sixty dishes, the greater part being splendid examples. The winner was Mr. A. J. Kemp (gardener to A. J. Barry, Esq., Castfield Place); second, Mr. G. C. Lyon, Alexandra Park; third, Mr. W. Peters.

Another silver medal, offered by Messrs. J. Stredwick and Son for six bunches of Cactus Dahlias, three in a bunch, was won by Mr. F. Grinstead, Beaufort Park, Battle, who had, amongst others, the new variety *F. M. Stredwick*.

Messrs. Arthur Charlton and Son, Summerdale Nursery, Tunbridge Wells, put up a large exhibit of herbaceous flowers.

CARDIFF GARDENERS' ASSOCIATION.

THE eighth annual outing took place on Monday, the 8th inst., when over sixty members left Cardiff at 5.40 a.m. in special saloon carriages for Reading to pay a visit to Messrs. Sutton and Sons, the Royal Seed Establishment. The party was met at Reading Station by Mr. H. G. Cox, who escorted the members to the Royal entrance, where they were met by Mr. M. F. H. Sutton. The chairman (Mr. T. Clarke) and hon. secretary (Mr. John Julian) signed the visitors' book. Mr. Sutton then gave a brief and welcome address to the party, who afterwards proceeded to view the various branches of the gigantic warehouses. Great interest was manifested by the methods of seed-testing and recording results, also seed-cleaning and storing. The vast suite of offices were inspected, where correspondence is executed dealing with business throughout all parts of the world. The methods adopted are simplified to the minutest detail. Proceeding by special trams the trial grounds were next inspected, together with the various greenhouses. Batches of *Gloxinias*, *Begonias*, and Tomatoes deserve special mention. Tomatoes were cropping extraordinarily well. Many other things of considerable interest were noted.

At 12.30 Mr. A. W. Sutton entertained the party to luncheon in the beautiful conservatory which stands in the grounds. Mr. T. Clarke proposed the health of "The Firm" of Messrs. Sutton and Sons, and in a few well-chosen words thanked Mr. Sutton for the hospitality extended to the members of the Cardiff Gardeners' Association. Mr. Sutton replied, and in his short and valuable address gave a few interesting incidents as to how the firm had risen. Mr. John Julian next proposed the health of "The Assistants" (Messrs. Deane, Cox, Macdonald, Bennett, and Plumer), who, he said, had done all they could to show everything of interest in the various departments. Messrs. Deane and Cox responded.

A move was then made for the river, where a steam launch was in readiness to convey the party down stream to Park Place, Henley-on-Thames (the residence of Mrs. Noble). Arriving there, Mr. Powell, the head gardener, took them over the place. The beautiful specimens of Cedars were greatly admired, as also were many other fine trees surrounding the residence. The scenery from this spot is charming.

Re-embarking for the return trip to Reading, the party repaired to the St. George and Dragon Hotel, Henley, for refreshments. The return train left at 9.5 p.m. Just before reaching Devizes an accident occurred; happily, beyond a severe shaking no one was hurt, and after an hour's delay the train proceeded, reaching Cardiff at 2.30 a.m. The arrangements were carried out in a most satisfactory manner by the hon. secretary.

SHREWSBURY FLORAL FETE.

THE thirtieth great annual floral fête of the Shropshire Horticultural Society was held in the Quarry Grounds, Shrewsbury, on Wednesday and Thursday last. On the opening day heavy rain fell unceasingly until the afternoon, and a thunderstorm broke over the town in the morning. The rainfall was so heavy that it was almost necessary to have the protection of an umbrella in some of the large tents, surely sufficient to damp the ardour of the most enthusiastic flower lover. However, Shrewsbury Floral Fête is a red-letter day, not only in the picturesque old town itself, but to thousands of dwellers in the thickly-populated neighbourhood, and sunshine or rain seems not appreciably to affect the attendance. Visitors in the morning were comparatively few, but in the afternoon the tents were thronged. As we write the weather improves, and it is safe to predict an enthusiastic and numerous "gate." No one pretends that the thousands of excursionists come to Shrewsbury Fête solely to see the flowers, for the numerous other attractions in the Quarry Grounds are ample evidence to the contrary. Nevertheless, there are few who do not make the round of the tents, and it is safe to say that at no other provincial show is there so much to be seen. One Shrewsbury show is very much like another, as all such great displays must necessarily be. There is always an attraction in seeing the best of plants, flowers, and fruit that brains and labour can produce, however, and long may this grand exhibition receive the patronage it deserves. To turn for a moment to some special features of the Fête. The hardy flowers made a brilliant show; sweet Peas were a host in themselves; Dahlias and Roses were not so good as usual; the groups and specimen plants were much the same as they always are; Carnations and Begonias were splendid; the black Grapes were much better than the white; the Peaches and Nectarines were beautifully coloured; the bouquets and floral displays were a credit to the designers, and the non-competitive exhibits were one of the features of the show. The white Grapes were weak all through the great champion class, though there were some magnificent bunches of black varieties. Mr. W. Shingler has now twice won the fifty guinea challenge cup, and may he soon become its possessor.

The decorated dessert tables seem to gain rather than lose by the exclusion of Orchids. These are often indiscriminately used with other flowers, and with bad effect. To venture upon a few criticisms we would say that it seems absurd to give prizes for decoration in a class so small as that for nine dishes of fruit. There is absolutely no scope for decoration at all; the first prize decoration consisted of two small glasses filled with sprays of Oncidium and some Smilax. It is a great pity that the naming of varieties of fruits is not enforced. A visitor sees a Melon, a dish of Peaches or Nectarines that obtains first prize, and he naturally wants to know which one it is, and it is disappointing to find no name attached. It is wearisome to see the same formally-trained specimen plants winning the same prizes year after year, and we would suggest that exhibitors be encouraged to grow and show them in a more natural manner after the style of the plants of *Ixora Duffii* and *Allamanda Williamsi* in the first prize collection of Mr. T. Lambert of Oswestry. These were the two most beautiful specimen plants in the show to our mind, and we feel sure that to encourage the culture of such would be well worth while. The plant of *Ixora Duffii*, with its large heads of rich orange-red flowers disposed loosely, was admired by everyone. To pioneer a large exhibition such as this to a successful conclusion requires tact, energy, and resource, and although we are repeating what we have stated before, we do not hesitate to say that the honorary secretaries, Messrs. Adnitt and Naunton, deserve the best thanks of the flower-loving public for their untiring labours in connexion with the Shrewsbury Floral Fête.

PLANTS.

Fifteen stove or greenhouse plants: First, Messrs. J. Cypher, Cheltenham, *Statiche intermedia* and *Dipladenia regina* being very fine. Mr. W. Vause, Leamington, was second with very large *Crotons*, *Bougainvilleas*, &c.

Six stove or greenhouse plants: First, Messrs. Cypher, with *Erica austriana* and *Ixora Williamsi* very good; second, Mr. W. Vause, Leamington; third, Mr. B. Cromwell, gardener to T. Sutton Timmis, Esq., Allerton.

Group of miscellaneous plants, 300 square feet: First, Messrs. Cypher and Son, with a charming display, foliage and flowering plants pleasingly blended. The white Lilies and white *Phalenopsis* and *Odontoglossums* were in striking contrast to the brightly-coloured *Crotons*, &c.; second, G. H. Kenrick, Esq., Edgbaston, with a group in which foliage plants were rather too numerous; third, Mr. W. Vause, Leamington.

Group of ornamental foliage plants, Palms, Ferns, &c., 300 square feet: Mr. Cypher, Cheltenham, was first with a display in which *Crotons* were largely used, and their splendid colouring undoubtedly largely helped to Mr. Cypher's success. They were well grown and boldly grouped. *Aralias*, *Strobilanthes*, *Alcasias*, *Anthuriums*, *Bamboos*, and *Palms*, too, were tastefully interspersed. Mr. J. V. Macdonald, gardener to G. H. Kendrick, Esq., Edgbaston, was second. A splendid Palm towered high in the centre, and from a groundwork of *Crotons*, *Aralias*, *Abutilons*, *Ferns*, &c., splendid plants of *Acalypha macaefana* stood out. Mr. G. Hancock, West Bromwich, was third.

Thirty stove or greenhouse plants: Mr. T. Lambert, Oswestry, was first with a really very pretty group. The plants were not stiffly trained, and therefore much more effective. *Allamanda Williamsi* and *Ixora Duffii* were very fine, the latter particularly so; Mr. Cypher was second with well-bloomed plants also; third, T. Sutton Timmis, Esq., Cleveley, Allerton. *Lapageria rosea superba* was very beautiful, trained in pillar form. Mr. Cypher showed the best stove or greenhouse plant in *Ixora Williamsi*.

For a group of tuberous *Begonias* in pots Mr. F. Davis, Woolshill, Pershore, won the first prize with some splendid plants, chiefly double varieties; second, Messrs. T. S. Ware and Son, Limited, Feltham. There were numerous other

classes for pot plants, e.g., for *Gloxinias*, *Coleus*, *Fuchsias*, *Ferns*, &c. The classes for groups and pot plants, open to residents in Salop only, brought some good exhibits.

PRIZE FOR NEW PLANTS.

Messrs. William Bull and Sons, King's Road, Chelsea, offered a handsome silver cup—in which we give a reduced illustration—value 10 guineas, and a money prize for the best six new plants sent out by them. The successful exhibitor was Mr. James Vert, gardener to Lord Howard de Walden, Saffron Walden, who showed the following: *Ceropegia Woodii*, *Ficus radicans variegata*, *Anemia rotundifolia*, *Heliconia illustris*, *Dracena Victoria*, and *Davallia lucida*.

FRUIT.

There were four competitors in the class for a dessert table decorated with plants in small pots, foliage, and cut flowers, Mr. Goodacre, Elvaston Castle Gardens, being first with 121 points. Full points were obtained for Apple Ribston Pippin, and other good dishes were Pears Williams' Bon Chrétien and Souvenir du Congrès, Grape Madresfield Court, and Pine-apple Nectarine. The decoration was very effective, *Schizanthus* and *Francoa* being chiefly used. Mr. G. Mullins, Eastnor Castle Gardens, Ledbury, was second with 116 points. No maximum points were obtained, though nine out of ten were given for general arrangement. *Francoa* and a rose-red *Potentilla* were chiefly used. Melons, Pears, Nectarines, Peaches, and Figs were very good. Mr. Dawes, Temple Newsam Gardens, was third with 95½ points. Mr. T. Jones, gardener to Mrs. Need, Malvern, won the fourth prize with 91½ points.

In the champion Grape class, for twelve bunches of Grapes in four or more distinct varieties, the first prize was a silver



SILVER CUP PRESENTED BY MESSRS. WILLIAM BULL AND SONS FOR SIX NEW PLANTS AT THE SHREWSBURY FLORAL FETE.

(Won by Mr. James Vert, gardener to Lord Howard de Walden.)

cup value 50 guineas, which must be won three times to become the property of the winner. First, Mr. W. Shingler, gardener to Lord Hastings, Melton Coustable, with 115½ points out of a possible 121. He obtained full points for Muscat of Alexandria twice, Gros Maroc twice, and Madresfield Court, all of which were very good bunches. The award of full points to the two bunches of Muscat of Alexandria caused some little surprise, as one bunch distinctly lacked colour, and the other was hardly of perfect form. Most of the white Grapes lacked colour. Mr. Goodacre was second with 109½ points, obtaining full points for none. This exhibit obtained second prize for decoration. Messrs. D. and W. Buchanan, Kippenby-Stirling, were third with 106 points; they did not obtain maximum points for any bunch. Mr. G. Mullins, Eastnor Castle Gardens, was fourth and first for decoration, using small *Crotons* and *Eulalias* in pots, *Francoa*, *Lychnis*, and *Gypsophila* in glasses, and *Asparagus* on the table. The third prize for decoration was won by Mr. R. Dawes, Temple Newsam Gardens, who was placed fifth for Grapes.

Sixteen dishes of fruit (separate prizes for decoration): Mr. J. H. Goodacre, Elvaston Castle Gardens, was first for fruit and second for decoration. Apple Gascogne's Scarlet, Nectarine Lord Napier, and Grape Madresfield Court were excellent. Mr. G. Mullins, Eastnor Castle Gardens, Ledbury, was second, winning the third prize for decoration.

Nectarine Stanwick Elruge, Grape Gros Maroc, and Pear Triomphe de Vienne were very good dishes. Mr. F. Jordan, Impney Hall Gardens, was third for fruit and first for decoration. He used cut *Odontoglossums*, *Cattleya*, *Francoa*, *Montbretias*, &c., and pot plants of *Croton* and *Chironia ixifera*.

Collection of twelve dishes of fruit (separate prizes for decoration): Mr. J. Dawes, gardener to Lord Biddulph, Ledbury, won the first prize with an excellent lot of fruit. Peach Sea Eagle was a splendid dish. The first prize for decoration was also awarded to this exhibit. *Francoa*, a single-flowered zonal *Pelargonium*, and *Gypsophila* were used. Mr. J. Jones, gardener to Mrs. Need, Malvern, was second for fruit and also for decoration. The white Grapes were poor in both exhibits. There were no other competitors.

Collection of nine dishes of fruit (separate prizes given for decoration): First, Mr. C. Roberts, gardener to Mrs. Swan, Halston Hall. The first prize for decoration was also awarded to this exhibit. Peach Alexandra Noblesse was very fine. The decoration consisted of sprays of a small-flowered *Oncidium*. The second prize was won by Mr. Charles Wilkes, gardener to C. F. K. Mainwaring, Esq., Ellesmere; second prize for decoration also. Third for fruit and for decoration, Mr. J. Langley, gardener to the Rev. T. M. Bulkeley, Tedsmore Hall.

GRAPES.

Mr. T. Lambert, Oswestry, had the best four bunches of Grapes, two black and two white, with very good Mrs. Pince and Muscat of Alexandria; Mr. C. Wilks, gardener to C. F. K. Mainwaring, Esq., was second, and Lord Trevor (gardener, Mr. W. Dawes) third.

Mr. Goodacre, Elvaston Castle Gardens, showed the best two bunches of Black Hamburg; Mr. A. Ruddock, gardener to E. A. Young, Esq., Bangor, was second, and Mr. Wilson, gardener to J. Brinton, Esq., Moor Hall, Stourport, third.

The best single bunch of Black Hamburg was shown by Mr. A. Ruddock, gardener to E. A. Young, Esq.; Mr. W. Dawes, gardener to Lord Trevor, being second; and Mr. G. Mullins, gardener to Granville Farquhar, Esq., Eastnor Castle, third.

Messrs. D. and W. Buchanan, Stirling, were first for two bunches of Black Muscats, showing Madresfield Court well coloured; Mr. Goodacre was second, and Mr. A. Ruddock third.

For two bunches of Madresfield Court, Mr. T. Lambert, Oswestry, was first; Mr. W. Shingler second, and Mr. Goodacre third.

Mr. J. Dawes, Ledbury, had the best two bunches of Alicante; Mr. C. Richardson, gardener to J. Bayley, Esq., Llanfairfechan, being second.

For two bunches of any other black Grape, Mr. Wilkins, gardener to C. F. K. Mainwaring, Esq., was first with Gros Maroc; second, Mr. Shingler with the same variety; third, Mr. Goodacre.

For two bunches of White Muscat, Mr. Goodacre was first; Mr. C. Richardson, Llanfairfechan, second, and Mr. J. Dawes, Ledbury, third.

Mr. Goodacre also had the best single bunch of White Muscat; Mr. F. Jordan, Impney Hall Gardens, being second, and Mr. C. Richardson third.

For two bunches of any other white Grape, Mr. J. Brown, gardener to J. Drake, Esq., Market Rason, was first with Mrs. Pearson; second, Mr. J. Mills, gardener to Captain Heywood Lonsdale; third, Mr. Lawley, gardener to Mrs. R. Darby, Acoote Hall.

Mr. R. Grindod, gardener to Major Clive, Hereford, had the best dish of Apricots, showing very good Early Red; Mr. J. Dawes, gardener to Lord Biddulph, Ledbury, was second; and Mr. Humphrey, gardener to the Earl of Chesterfield, third.

Mr. J. Dinnell, West Felton Gardens, Oswestry, had the best flavoured green flesh Melon (not named); Mr. C. Ritchings, Guernsey, being second; and Mr. B. Ashton, gardener to the Earl of Lathom, third.

Mr. E. Clowes, gardener to E. C. Pelle, Esq., Shrewsbury, was first for the best flavoured scarlet flesh Melon (no name); second, Mr. W. A. Webster, Paul's Moss Gardens, Whitchurch, with Blenheim Orange; third, Mr. J. Stalker, Madeley.

The best white flesh Melon (not named) was shown by Mr. J. Barson, gardener to the Earl of Sandwich, Huntingdon; second, Mr. R. Grindod; third, Mr. W. Phillips, Leighton House Gardens.

Mr. W. Dawes, gardener to Lord Trevor, showed the best two bunches of Black Hamburg in the class open to Salop only. There were similar classes for two bunches of Madresfield Court: First, Mr. Mills, gardener to Captain Heywood Lonsdale. Two bunches of black Grapes: First, Mr. T. Lambert, Oswestry. Two bunches of White Muscats: First, Mr. James Mills, gardener to Captain Heywood Lonsdale. Two bunches of white Grapes: First, Mr. W. Dawes, gardener to Lord Trevor.

Mr. Goodacre showed the best yellow Plums (Jefferson), the best purple Plums (Kirke's), and the best Gage Plums (Transparent Gage). Mr. A. Ruddock sent the best dish of Cherries.

Mr. T. Barson won the first prize for a dish of Nectarines with beautiful fruits; second, Mr. Goodacre; third, Mr. W. A. Webster, Whitchurch. Mr. B. Ashton sent the best dish of Peaches (Royal George); second, Mr. J. Dawes, Ledbury; third, Mr. R. Grindod, Hereford.

CUT FLOWERS.

Collection of Cactus or decorative Dahlias: First, Mr. W. Treseder, Cardiff, with, needless to say, beautiful flowers attractively arranged; Mr. S. Mortimer, Farnham, was second; Messrs. Keynes, Williams and Co., Salisbury, third. This class made a charming display. Among the new seedlings were Mrs. J. S. Brunton (yellow Cactus) and Blush Queen (deep rose Cactus, with white centre).

Mr. W. Treseder, Cardiff, was also first for a collection of Dahlias, any varieties, with a bold display of show and Cactus sorts; Messrs. M. Campbell and Son, High Blantyre, were second with a less striking display; Messrs. Keynes, Williams and Co., Salisbury, were third.

Mr. Maurice Prichard, Christchurch, Hants, was first in the class for a collection of hardy perennials, making a splendid show of good things. Gladioli, Tritomas, Gaillardias, Lilies, Phloxes, Montbretias, &c., were very fine. Second, Messrs. Harkness and Son, Bedale, Yorks, the bunches of flowers too compactly set up; third, Messrs. Cocker and Sons, Aberdeen.

For a collection of cut Carnations and Picotees, with their own foliage and buds, not dressed, Mr. W. A. Waits, Bronwyfa, St. Asaph, won the first prize with a very beautiful display. Four of his varieties obtained awards of merit, and are mentioned elsewhere. Mr. A. F. Dutton, Bexley Heath, London, was a good second, having his blooms very attractively arranged. For a similar collection (trade excluded) Mr. W. B. Vernon, Oswestry, was first.

For twelve vases of Carnations and Picotees Mr. A. R. Brown, Handsworth, Birmingham, was first, and for twelve bunches of cut flowers, stove and greenhouse, the first prize was won by Mr. Cromwell, gardener to T. Sutton Timms, Esq., Allerton.

SWEET PEAS.

For the best exhibit of eighteen distinct varieties of Eckford's Sweet Peas (prizes by Mr. Eckford) Mr. T. Jones, Ruabon, was first with a lovely lot, Dorothy Eckford, Black Knight, and Mrs. W. Wright being especially fine; Mr. T. Duncan, Duns, N.B., was second.

For twelve distinct varieties (prizes by Mr. Robert Sydenham) W. H. Banks, Esq., Kingston (gardener, Mr. Bamfield), was first, Lord Rosebery and Dorothy Eckford being unusually fine; Mr. T. Duncan, Duns, was second with lovely Miss Willmott, Dorothy Eckford, and Countess Spencer; third, Mr. T. Jones, Ruabon.

For six vases of Sweet Peas (prizes by Messrs. Jones and Son, Shrewsbury) Mr. C. Peplow, Bicton Heath, was first.

Mr. W. H. Banks won the first prize in the open class for twelve distinct varieties of Sweet Peas with a beautiful lot; Mr. C. Peplow being second.

FLORAL DECORATIONS.

For bouquets, Messrs. Jenkinson and Son, Newcastle. Staffs, were first with very beautiful arrangements of Odontoglossum, Oncidiums, and Lelias; second, Mr. F. Gault, Kilmalcolm; third, Messrs. Felton and Sons, London.

For one bride's bouquet, Messrs. Jenkinson were again first; the other winners were Mr. W. J. Garnier, Altrincham, and Mr. Gault.

For a bouquet of flowers, Messrs. Jenkinson again were first; second, Mr. W. J. Garnier; third, Messrs. Felton.

For a shower bouquet of Dahlias, Messrs. Felton won with a bright scarlet, Mr. W. J. Garnier second. Messrs. Pope and Sons were first for a bouquet of flowers.

For a floral cross Messrs. Felton won with a charming arrangement; Messrs. Pope and Sons and Mr. W. Treseder, Cardiff, were the other prizewinners.

For a floral harp, Mr. W. Treseder was first, Messrs. Pope second, and Messrs. Felton won the remaining award.

Basket of flowers: First, Mr. O. Robinson, Alderly Edge, with a brilliant display, Lelias and Odontoglossum being relieved by highly-coloured Croton foliage; Mr. M. E. Jones was second, and Messrs. Felton third.

Hand-basket of cut flowers: First, Messrs. Felton; second, Mrs. M. E. Jones.

Floral wreath: First, Messrs. Felton; second, Mr. W. Treseder.

Stand of cut flowers: First, Messrs. Felton.

VEGETABLES.

Collection of nine distinct kinds (prizes presented by Messrs. Sutton and Sons): The premier award was set up by Mr. E. Beckett, gardener to the Right Hon. Lord Aldenham, and contained some fine produce, including Ailsa Craig Onion, New Red Intermediate Carrot, Sutton's Perfection Tomato, Sutton's Solid White Celery, Best of All Runner Beans, Sutton's Prizetaker Leek; second Mr. B. Ashton, gardener to the Right Hon. the Earl of Lathom, with a good lot; third, Mr. W. Leith, gardener to Colonel O. R. Middleton.

Nine distinct kinds (prizes presented by Messrs. R. Smith and Co.): Mr. E. Beckett again was first; Mr. B. Ashton was second with fine King Edward VII. Potatoes, &c.; third, Mr. R. A. Horspool.

For nine distinct kinds Mr. E. Beckett again led with good Ailsa Craig Onion, Carter's Standard Bearer Celery, Autumn Giant Cauliflower, Duke of York Tomato, &c.; Mr. B. Ashton again a second, having fine Elephant Peas, &c.

For eight distinct kinds (prizes given by Mr. Edward Murrell): Mr. R. C. Townsend, gardener to J. B. Akroyd, Esq., Chalfont Park, Bucks, was first, having good Potatoes, Onions, Runner Beans; second, Mr. E. Jones, gardener to the Misses Howell, Rhineport; third, Mr. E. Walker, gardener to Sir W. Honynam, Bart., Whitechurch.

For six kinds (prizes by Mr. E. Murrell): Mr. J. Abbot, gardener to Mrs. Guire, Hadnall, had the leading lot; second, Mrs. Tinsley, Whittington; third, Mr. J. Clowes, gardener to G. F. Ward, Esq., Hadnall Hall, all unnamed.

Six distinct kinds (prizes by Messrs. Webb and Sons): Mr. B. Ashton held the coveted position with grand Potato New Empire, Onion Ailsa Craig, Carrot New Prizewinner, Cauliflower Webb's Autumn Giant, and Pea New Masterpiece; second, Mr. W. L. Bastin, gardener to Sir A. Henderson, M.P., Farington; third, Mr. W. Pope, gardener to the Earl of Carnarvon, Highclere Castle. Eight entries.

Collection of vegetables, twelve kinds: Mr. E. Beckett was again successful, staging finely throughout; second, Mr. L. Bastin; third, Mr. R. A. Horspool.

Collection of nine kinds: Mr. J. Mills, gardener to Colonel Heywood Lonsdale, Sharnington, Mr. T. Birch, gardener to Colonel C. W. Herbert, Osleton Hall, and Mr. John Delauney were first, second, and third respectively.

Three dishes Potatoes: Mr. B. Ashton led with splendid examples of Sutton's Ideal, Sutton's Reading Russet, and General Buller; second, Mr. E. Cumberland; third, Mr. W. Pope, out of eleven entries.

Six Tomatoes: First, Mr. J. Weston; second, Mr. J. Jones, gardener to Mrs. F. Need.

Mr. Robert Sydenham, Tenby Street, Birmingham, offered numerous prizes for vegetables, and Messrs. Hewitt and Co., Birmingham, Messrs. John King and Sons, Reading, Mr. John Wilson, Hereford, and Messrs. Pritchard and Sons, Shrewsbury, also offered prizes.

NON-COMPETITIVE EXHIBITS.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited a group of miscellaneous plants, that included Nepenthes, Crotons, Ferns, Alcaestias, Dracena Doncetti, Ixoras, Caladiums, &c., all well grown and boldly grouped. A small group of Orchids in the centre added a bright touch of colour. Messrs. Veitch also showed Buddleia variabilis veitchiana, not grown, and bearing racemes of flowers 15 inches to 18 inches long.

Messrs. Hobbies, Limited, Dereham, made a delightful display with Dahlias and Roses.

Mr. Agus, Penicuik, showed Chrysanthemum maximum King Edward, C. Robinsoni, and Carnations.

Messrs. Jarman and Co., Chard, had a very bright display of cut Rosea, Pelargoniums, Dahlias, Sweet Peas, and hardy flowers.

Messrs. Reamsbottom and Co., Alderborough Nurseries, Geashill, King's Comty, exhibited their beautiful Anemones in many shades of colour. King of Scarlets and Salmon King were two of the finest varieties.

Mr. George Prince, Longworth, Berks, exhibited a stand of garden Bases, comprising many lovely bunches, as well as some fine blooms of Frau Karl Druschki.

Mr. A. J. Bruce, Chorlton-cum-Hardy, showed an interesting collection of Sarracenia, Darlingtonias, Pinguiculas, &c.

Mr. John Forbes, Hawick, showed some very fine Pentstemon, Phloxes, and miscellaneous hardy flowers, as well as cut blooms of Carnations and Dahlias.

The Pansies from Messrs. Dobbie and Co., Rothesay, made a delightful show, especially those shown in bunches.

Messrs. Peed and Sons, West Norwood, exhibited a large bank of Gloxinias in many beautiful shades of colour.

The Sweet Peas from Messrs. Jones and Sons, Shrewsbury, as well as their Dahlias and Carnations, were very bright and much admired. Messrs. Jones also showed a variety of floral designs.

The large group from Messrs. Webb and Sons, Wordsley, contained Gloxinias, Sweet Peas, Holyhocks, Gladioli, and other hardy flowers in excellent variety.

Mr. Edwin Murrell, Shrewsbury, had some very good Roses, both in pots and bunches. Single blooms of Frau Karl Druschki and Soleil d'Or (hybrid Austrian Eriar) were very attractive.

Messrs. Felton and Sons, Hanover Square, W., exhibited a group that contained Lilies, Crotons, small Cacti, Lilies of the Valley, &c.

Mr. Bouskell, Market Bosworth, showed hardy flowers extensively and in great variety. Phloxes were finely shown by Messrs. Green and Sons, Olton, Birmingham.

The King's Acre Nursery Co., Hereford, exhibited fruit trees in pots and a collection of Apples, as well as hardy flowers in variety.

From Baker's, Wolverhampton, Dahlias were well and extensively shown, as also were Pelargoniums, Roses, and hardy flowers in great variety, making a splendid display altogether.

Messrs. Dicksons, Limited, Chester, had some splendid Lilium auratum in their group of hardy flowers, as well as some fine Gladioli. They also showed a collection of really well grown stove plants.

The zonal Pelargoniums from Mr. Albert Myers, Shrewsbury, made a most attractive display, and the Cacti in small pots from Mr. Richard Anker, Addison Nursery, Kensington, were interesting.

Messrs. Thomas B. Dubbs and Co., Wolverhampton, exhibited rustic work, decorated with various plants.

Messrs. Isaac House and Son, Westbury-on-Trym, exhibited a splendid display of Phloxes, Pentstemons, Tritomas, and other hardy flowers.

Messrs. T. S. Ware, Limited, Feltham, showed a bright display of tuberous Begonia plants in pots, the flowers large and of good colouring.

Messrs. B. R. Davis, Yeovil, showed fine cut blooms of tuberous Begonias in many lovely shades of colour.

Messrs. Laing and Mather, Kelso, showed a most attractive group of Carnations in many beautiful sorts.

Messrs. R. Smith and Co., Worcester, had a brilliant bank of hardy flowers, as Lilies, Tritomas, and Phloxes, backed by Palms and Bamboos.

Messrs. Hewitt and Co., Solihull, showed Carnations and other hardy flowers.

Mr. L. E. Russell, Richmond, Surrey, exhibited a group of exceedingly well-grown and finely-coloured stove plants.

Messrs. Pritchard and Son, Shrewsbury, showed table decorations and Ferns.

Mr. J. H. White, Worcester, exhibited a splendid lot of hardy flowers in great variety.

Messrs. Clibraos, Altrincham, exhibited a brilliant group of their gold medal strain of Celosias.

Mr. W. L. Pattison, Shrewsbury, showed Violas and Pansies extensively, and Mr. J. E. Knight, Wolverhampton, arranged a small group of Chrysanthemums.

Mr. John Derbyshire, Ashley Road, Hale, Altrincham, exhibited a large collection of Sweet Peas, and Mr. G. Fitzherbert, Wrexham, sent flowers of tuberous Begonia seedlings.

Mr. Henry Eckford showed a delightful lot of Sweet Peas, among which Scarlet Gem was noticeable. Mr. Harold D. Golden, Moberley, also showed Sweet Peas.

Mr. Vincent Slade, Taunton, exhibited some very fine zonal Pelargoniums.

Messrs. W. and J. Brown, Stamford, showed Roses and Carnations, and Mr. G. Penwill, Totnes, sent his new Raspberry Penwill's Champion.

Mr. Joseph Lambert, Southport, showed Carnations, and Mr. Robert Bolton, Warton, Carnforth, Sweet Peas.

AWARDS.

Large gold medals were awarded to Messrs. Jas. Veitch and Sons, Limited, Chelsea; Dicksons, Limited, Chester; Bakers,

Wolverhampton; Jarman and Co., Chard; Hobbies, Limited, Dereham, and Jones and Sons, Shrewsbury.

Small gold medals to Messrs J. H. White and Son, Worcester; George Prince, Longworth, Berks; Clibraos, Altrincham; Isaac House, Westbury-on-Trym; and Albert Myers.

Awards of merit were given to Carnations Etua (Derbyshire); Mrs. Kearley, bluish; Pied Piper, yellow, marked with crimson; The Master, bright red; and Clewly, apricot, marked with scarlet (all from Mr. W. A. Waits). Cactus Dahlias Mrs. Branton, yellow, and Blush Queen, deep rose, with light centre (Mortimer). Centaurea The Bride (Jarman).

[We shall give the other medal awards next week.]

NATIONAL CARNATION AND PICOTEE SOCIETY. NORTHERN DIVISION.

The annual exhibition was held on the 13th inst. in the show house of the Manchester Botanical Society at Old Trafford in beautiful weather. The exhibition was fully up to the average as to quality, and there was a slight increase in the number of exhibits. The arrangements were, as usual, ably carried out by Mr. William Prescott, the courteous secretary and treasurer.

For twelve Carnations, bizarres and flakes, white grounds, dissimilar, Mr. T. Lord, Todorden, staged the premier stand; second, Mr. C. F. Budenberg, Marple.

Six bizarres or flakes, white grounds, Mr. C. E. Rossiter, Birmingham, led with good blooms; second, Mr. J. Brocklehurst.

For twelve Picotees, white grounds, dissimilar, Mr. T. Lord had the leading award with excellent flowers; second, Mr. J. Edwards.

For six Picotees, white grounds, dissimilar, Mr. W. H. Goodfellow, Walsall, was first.

For twelve selfs, not more than two of any one variety, Mr. A. R. Brown had the winning lot with Chaucer, Bomba, Gloriosa, Sappho, Benbow, Cadet, Edna Lyall, Teddy Galton, Milton, Jenny Gough, and Wordsworth; second, Mr. T. Lord.

For six selfs, not more than two flowers of any one variety, Mr. F. W. Goodfellow led out of eleven exhibits.

For twelve yellow or fancy ground Carnations or Picotees Mr. G. W. Goodfellow was first, followed by Mr. A. R. Brown.

For six fancy or yellow ground Carnations or Picotees Mr. J. Brocklehurst held the place of honour; second, Mr. W. Hancock.

For the best scarlet bizarre Mr. T. Lord won with Robert Houlgrave; second and third, Mr. J. Edwards with Robert Lord and Robert Houlgrave; fourth, Mr. Budenberg; fifth, Mr. Brocklehurst. For the crimson bizarre: First, Mr. T. Lord with Master Fred; second, Mr. E. Kenyon with seedling; third, Mr. A. R. Brown with Agameon; fourth, Mr. J. Edwards with J. D. Hextall; fifth, Mr. T. Lord with the same variety. Pink and purple bizarre, the winners were: First and second, Mr. T. Lord; third, Mr. Rossiter; fourth, Mr. J. Edwards, all with Sarah Payne; fifth, Mr. Rossiter with W. Skirving. Scarlet flake: Mr. T. Lord first with Guardsmao; second, Mr. J. Edwards with Sportsman; third, Mr. S. Lord with John Wormald; fourth, Mr. J. Edwards with Sportsman; fifth, Mr. J. Brocklehurst. Rose flake: First, Mr. J. Edwards with Reliance; second, Mr. E. Sale with Mrs. T. Lord; third, Mr. Rossiter with Mrs. T. Lord; fourth, Mr. J. Brocklehurst with Dolly Vardon; fifth, Mr. A. R. Brown with Mrs. T. Lord. Purple flake: First, Mr. T. Lord with Gordon Lewis; second and third, Mr. Rossiter, same variety; fourth, Mr. T. Lord with George Melville; fifth, Mr. T. Bolton with Gordon Lewis.

Picotees, single blooms, best heavy-edged red: First, Mr. T. Lord with W. E. Dickson; second, Mr. J. Edwards with Brunette; third, Mr. E. Kenyon with Dr. Epps; fourth, Mr. Rossiter with Brauette; fifth, Mr. Plant. Light edged red: First, Mr. J. W. Goodfellow with Mr. Gorton; second, Mr. T. Lord with Thomas William; third, Mr. F. A. Goodfellow with Mrs. Gorton; fourth, Mr. C. J. Thurston, same variety; fifth, Mr. Rossiter with Thomas William. Heavy-edged purple: First, Mr. T. Lord; second, Mr. Rossiter; third, Mr. C. H. Thurston; fourth, Mr. T. Lord; fifth, Mr. C. H. Thurston, all with Amy Robsart. Light-edged purple: First, Mr. F. A. Goodfellow with Pride of Leyton; second, Mr. J. Edwards; third and fourth, Mr. E. Kenyon with Summerhill; fifth, Mr. T. Lord with Harry Kenyon. Heavy-edged rose-scarlet or salmon: First, Mr. T. Lord with W. H. Johnson; second, Mr. A. R. Brown, same variety; third, Mr. J. Edwards with Lady Louise; fourth, Mr. E. Kenyon with Mrs. Sharp; fifth, Mr. G. Thornley with Mrs. Beswick. Light-edged rose-scarlet or salmon: First, Mr. C. F. Thurston with Lucy; second, Mr. A. R. Brown, same variety; third and fourth, Mr. J. Edwards with Favourite; fifth, Mr. A. R. Brown.

The best Carnation in the whole exhibition came from Mr. T. Lord, who had Master Fred, a finely-coloured crimson bizarre.

The best Picotee in the whole exhibition was from Mr. E. C. Rossiter, who showed a refined bloom of Thomas William, a light-edged red.

CHEPSTOW HORTICULTURAL SHOW.

THIS society held its sixth annual show in connexion with an agricultural society's show in the beautiful Piercefield Park, Chepstow, which was kindly lent by Mr. H. Clay. Most of the classes for fruit, vegetables, and plants were well filled with very good produce. Peaches, Grapes, collections of vegetables, and collections of Potatoes being particularly noteworthy. The best collection of fruit came from Mr. Adamson, gardener to W. Pegler, Esq., The Mount, Chepstow. Mr. Cooper, gardener to Sir W. Marling, Sidbury Court, Chepstow, was a good second.

Mr. Baker, gardener to Dr. Copper, Mount Ballan, near Chepstow, who was placed first, had large, nicely shaped and coloured bunches of black Grapes, by Mr. C. S. Hughes, gardener to the Misses King, Buscobel House, was second.



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SHREWSBURY FLORAL FÊTE THE "TEMPLE SHOW" OF THE NORTH.

WHAT may not inaptly be termed the Temple Show of the provinces—the Shrewsbury Floral Fête, as the annual exhibition of the Shropshire Horticultural Society is called—was held last week in the delightful Quarry Grounds, and notwithstanding the almost incessant downpour on the opening day was largely attended. So popular an institution has this fête become that its success is practically assured before the gates are opened, hundreds of tickets being sold some days in advance. It is a proud boast that a town with less than 30,000 inhabitants should have built up a flower show and fête which has no rival in this country, and which draws visitors from all quarters. For nearly thirty years past this society has held its floral fête, and apart from the advantages the townspeople have derived from the annual incursion of so many thousands of people, the show has served another most commendable purpose. The income of the society from the twenty-nine shows which have been held amounts to the large sum of £84,004. The profits have not been exceptional because of the great expenses connected with the fêtes, but in twenty-nine years the society has spent a sum of £7,000 in public improvements—chiefly in beautifying the Quarry—donations to charitable institutions, &c., and still has a handsome reserve fund. At a cost of £1,086 the society has further removed the reproach that Shrewsbury had no memorial of her greatest son, Charles Darwin, by providing the statue which now adorns the front of the school at which he was educated, now converted into a public library, a conversion that was assisted by the society by donations amounting to £405. Considerable sums have also been spent in improving the banks of the Severn, in giving open air spaces as recreation grounds, and in laying out the Abbey Gardens, a work which cost £300. Surely this is a noble record for a horticultural society.

It is interesting to notice that at the first show the total value of the prizes offered was £96, whereas at the show held last week the cash prizes in the horticultural section alone amounted to £1,100, excluding the fifty guinea silver challenge cup for Grapes, silver cups, gold and silver medals, &c. Such unexampled progress in the history of a provincial horti-

cultural society reflects the greatest credit upon the organisers and managers, of whom, in addition to the influential committee, we may mention Sir Walter Smythe, Bart., who is president for the year, and who has made himself much more than the nominal head of the society, and the honorary secretaries, Messrs. Adnitt and Naunton, of whom it is said that neither has been absent from the floral fête once during the last thirty years, a proud record of splendid work.

The exhibits last week were striking evidence of the variety and good quality of the horticultural products of our country and of the skill of our gardeners. It would be impossible in any country to see finer fruits and vegetables, plants, and flowers, and a few hours spent in the tents must have convinced everyone but the most hopeless pessimist of the sound teaching of those who advocate "Back to the Land." It may seem puerile to criticise details among such a wealth of good material and evidence of the best management; but as the success of the whole depends upon the right building up of details, we may venture, in a kindly spirit, to emphasise one or two points that we drew attention to last week. Quite a minor matter is that of offering prizes in such a small class as that for nine dishes of fruit, where there is absolutely no scope. Rather a more important item is that many of the first prize dishes of fruits were unnamed. Now if a visitor wishes to know the name of anything at all, the finest varieties of fruits or flowers would naturally be the first to arouse his curiosity. And it could hardly be otherwise than disappointing to find them unnamed. We think those responsible would do well to make the naming of the varieties of fruit and flowers, in the competitive classes, compulsory.

No one can deny that the exhibition of the same stiffly trained specimen plants year after year is wearisome. We feel sure that if a class were instituted for naturally-grown specimen plants it would prove much more pleasing to the eye, and would be studied with interest and pleasure by the passers by, and this we are afraid can hardly be truthfully said of the present day trained specimens. Again, why should not growers be encouraged to exhibit other plants in these classes. This again would give variety and an added interest to them, and relieve their almost painful monotony. With these few suggestions we close our appreciation of this great horticultural event.

NATIVE WILD FLOWERS FOR THE ROCK GARDEN.

THE following excellent notes, by the late Rev. C. Wolley-Dod, will be read with interest and profit:

Those who think that the only proper place for wild flowers is a wild garden or a natural bank should remember how many town houses and suburban villas have owners who love wild flowers, but have no space to devote to wilderness. And there are many towns, such as Matlock and Great Malvern, where the rockeries with which the gardens abound are not made the most of, being smothered with white Arabis and Mossy Saxifrage and two or three common Sedums, to the exclusion of gayer flowers quite as easily grown. In recommending a few native flowers for such places I do not mean flowers called native only by courtesy, or those which are so rare or so generally cultivated as to be better known as garden than as wild plants, but flowers which may either be found anywhere, or which are locally abundant in many parts of the kingdom, even though they may look best on their native banks where they have to fight their way amongst grass and coarser plants. They look very well when they revel luxuriantly in a space cleared for them, and their flower-heads have only to struggle with one another for the most conspicuous place to display their beauty. When I speak of rockeries I do not mean heaps of rocks or stones placed to fill up dark and shady corners where nothing will grow but Ferns, but the facings of sunny banks or piles of large stones with soil inside raised in the most open part of the garden. Rock plants, as a rule, delight in full exposure to sun and air, though there are some exceptions.

The first plant I mention is the common Bird's-foot Trefoil (*Lotus corniculatus*), which is easily cut to any size, and makes such a mass of gold colour through June and July as few plants can rival. Then there are the biennial *Geranium lucidum* (the Shining Crane's-bill) suited for any shady corner, or for the angles and sides of rough steps. Its bright glossy foliage is invaluable in winter, and the scarlet tint of its old leaves in spring has a good effect. It may easily be established, and transplanted or weeded out. Then there is the common wild Thyme, for which a gravelly spot should be selected, and, as the plant flowers all over, it may easily be cut to its proper limits. The white variety has flowers as pure as snow, and should not be omitted, as it contrasts well with the yellow of the Trefoil. The Trailing St. John's Wort (*Hypericum humifusum*) is common in most parts of the kingdom. It flowers late, but its elegant light green leaves and close habit make it a very good rock plant. Being truly herbaceous, it does not encroach.

The Bluebell (*Campanula rotundifolia*) is superior to many of the alpine Campanulas. It requires care in getting up. If you mark a

large plant on a stony bank to be got up in autumn, you will probably find that it has a tap root 1 foot long, thicker than a large Radish, and with many branches from the end. These must not be broken, but you must imitate on your rockery the natural conditions. In this way large plants of many years' growth may be successfully moved. Several varieties of colour may be found, especially pure white and light lavender. The Wood Sorrel (*Oxalis acetosella*) will probably come up of itself on your rockery, but if not, unless crevices, where little else will grow, may be assigned to it. The Horse-shoe Vetch (*Hippocrepis comosa*) is abundant on chalk downs in the south of England, and on limestone rocks elsewhere. It is a first-rate rockery plant. The Sea Bladder Campion (*Silene maritima*) is one of the most beautiful of wild flowers, as it grows in the fissures of its native rocks at Llandudno. I am very successful with it on my limestone rockery, where it is far more ornamental than the double form so common in nurseries. The Mountain Cudweed (*Gnaphalium dioicum*) abounds on the top of the Llandudno mountain, and on many other downs in the west of England. Planted on the exposed top of a rockery it is always neat, but prettiest when in bud in May. At that time a patch containing three or four colours always reminds me of the coloured pictures of Aaron's breast-plate. The Common Dropwort (*Spiraea Filipendula*) is better known in gardens in its double form, but the bright pink of the buds is more conspicuous in the single flower-heads. Though the stalks are rather tall, the foliage is neat and close-growing, and the plant never does so well as on a sunny rockery. All the plants I have mentioned are easily obtained and easily grown, but most of them expect and deserve a good place. I could add many more, but should certainly exhaust the patience of your readers sooner than the list of plants.

PRESERVATION OF WILD FLOWERS.

THE lecture on Tuesday afternoon last at the meeting of the Royal Horticultural Society was on a subject which should arouse interest in the hearts of all who love their country. Professor Boulger, in an exhaustive and interesting lecture, pointed out clearly and reasonably the results that the present destruction of the flora will lead to—a flowerless England, brought about not by the thoughtlessness of the child who plucks flowers only to throw them away, but of the tourist, the objectionable botanist who removes rare species wholesale, and the men who dig up roots in hedgerows and on private estates for the sake of gain. The United States of America and many other countries were striving to protect their wild flowers, but except in Devonshire little has been accomplished here, and the destruction goes merrily on until the time will come when threatenings and punishments are unavailing—the flowers of England will be no more. This is not an hysterical utterance, but the plain truth. Many articles have recently appeared in THE GARDEN on this question, and we hope, now that the Royal Horticultural Society has in a sense recognised a grave and growing evil, definite steps will be taken to secure effective legislation. The law of trespass is a strange one, and we hope to again refer to this subject and to publish Professor Boulger's lecture when it appears in the Journal of the Society. At the moment of going to press we can do no more than briefly refer to it.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 31.—Reading Show; Bath Floral Fête.
 September 1.—The Cottagers' Show at Great Warley, held in Miss Willmott's grounds.
 September 2.—National Dahlia Society at Crystal Palace (two days).
 September 6.—Royal Horticultural Society's Committees.
 September 7.—Hull Horticultural Association (two days).
 September 14.—Royal Caledonian Horticultural Society's Show, Edinburgh (two days).
 September 20.—Royal Horticultural Society's Committees; National Rose Society's Autumn Show.
 October 5.—National Chrysanthemum Society's Show at Crystal Palace (two days).
 October 12.—Royal Botanic Society.
 October 25.—Croydon Chrysanthemum Society's Show (two days).
 November 1.—Bournemouth Chrysanthemum Show (two days); Brighton Chrysanthemum Show (two days).

Rose show at the Crystal Palace.—The directors of the Crystal Palace write that it is their intention to hold a Rose show there next year.

Huntly flower show.—His Grace the Duke of Richmond and Gordon opened the annual show of the Strathbogie Horticultural Society at Huntly on the 17th inst., the chair being occupied by Provost Arnott. His Grace gave an interesting address, in the course of which he warmly advocated the improved cultivation of cottage gardens, and commended the objects of the society, which, he said, was established in 1846, only a year after his birth. The show was quite equal to the average of former years, and all the classes included produce of high quality. The most successful competitors among the gardeners were Mr. A. Philip, Mr. J. Cattnach, and Mr. P. Duncan. The leading prize winners in the amateurs' classes were: Pot plants, Mr. Alex. Dufton; cut flowers, Mr. J. Petrie; fruit and vegetables, Mr. J. Mitchell.

Bedding Begonia Count Zeppelin. I cannot agree with the favourable opinion expressed by your correspondent A. Osborn, on page 120 of your last issue, as to the merits and beauties of this Begonia, as, after a series of trials extending over three years, I have come to the conclusion that it is utterly worthless, and intend to throw it away. My reason for forming this opinion is that in my garden, at all events, it drops nine out of every ten of its male or double flowers in a bud state unopened, leaving only the comparatively small and thin single female flowers to expand, which, though their colour is bright, form a very poor and inadequate show for bedding purposes. I can in no way account for this singular failure, but only state the fact as proved by my own experience for the past three years.—W. E. GUMBLETON.

International fruit show at Düsseldorf.—The directors of the International Horticultural Exhibition, which is being held this year at Düsseldorf, have now issued their programme and schedule for the International Fruit Exhibition, which will be held from October 8 to 16 next, in conjunction with the congress of the German Pomological Union, and in addition to these two important events a German show of market fruit and nursery garden goods. The last day of entry is September 15. No dealers are allowed to compete, no charge is made for entry or for space, and the exhibition authorities pay the cost of carriage of goods to Düsseldorf. As was to be expected, the schedule is at once large and comprehensive, and is divided into 147 classes, over 100 of which are reserved for the thirteen sections into which the international exhibition is divided. Collective exhibits are invited from countries, states, associations, and unions. There will be instructive educational exhibits, including specimens of the best early and late fruits from different parts, arranged according to the local

dates of ripening, classes in which size and beauty or recent introduction will be determining factors in the awards. Fourteen classes each will be reserved for named varieties of Apples and Pears. Besides Apples, Pears, Nuts, and stone fruits there promises to be a great show of wine and dessert Grapes. Fruit in pots and table decorations have also special sections devoted to them. Makers of boxes, baskets, and other packing methods have seven classes for their wares, and the exhibits of pictures, models, photographs, books, periodicals, and plans, all relating to pomology, should prove of great interest to the public, as well as those for whose special benefit they will be gathered together. Schedules and forms of application may be had on application to Freiherr A. von Solemacher, Burg Namedy, near Andernach-on-Rhine.

Introduction of the Cherry.—Whence have we Cherries? This well-known fruit formerly grew wild near Cerasus in Pontus.—Who first brought them to Rome? Lucullus, a Roman general.—Who first planted them in Ireland? Sir Walter Raleigh on his estate at Youghal.—And when were they planted in England? In Henry VIII.'s time about Sittingbourne in Kent. In this staccato fashion knowledge was impressed upon my memory in my youth, and these questions and answers were recalled to my mind by the note on "Cherries" in last week's GARDEN. Now Cherries must have been planted in England before Henry VIII.'s reign, as is proved by the following quotation from John Lydgate's poem, "The London Lackpenny," written in 1429:

"Then unto London I did me hie,
 Of all the land it beareth the prize;
 'Hot peascodds!' one began to cry;
 'Strawberries ripe!' and 'Cherries in the rise!'"

The expression "in the rise" means on the bough, therefore freshly gathered, not imported. Probably the Romans first brought Cherries into England. On looking up the life of Lucullus in the "Dictionary of Greek and Roman Biography," after a short account of his wars it mentions the fact of his bringing Cherries to Rome, and the following references to Pliny are given: "Plin. H. N., VIII. 52, IX. 54, XIV. 14, XV. 25." The Roman figures evidently refer to the books of the elder Pliny's "Historia Naturalis," of which, unfortunately, I have no copy, but as Book XV. is on the "Olive, Fig, Apple, and other luscious fruits," it is extremely likely that the passage in Pliny required by your correspondent is to be found therein.—W. SPURLING.

Lilium sulphureum in a small garden.—When first introduced into this country the Himalayan Liliums were treated as cool greenhouse plants, as they succeeded indifferently out of doors. However, L. Henryi has since proved to be quite hardy, and to flower as freely outside as inside. Judging from the way L. sulphureum is flowering in a little front garden at Richmond it will do quite as well. Five years ago Mr. Corrin, the proud grower of the Liliums, planted a few bulbs, seven of which grew. No special treatment was accorded them beyond mixing a little lime rubble, sand, and fowl manure with the ordinary garden soil. The first three years only growth was made, and Mr. Corrin felt disposed to pull them out, but fortunately left them for another year, when two or three flowered. This year (the fifth) all are flowering, six of the bulbs carrying three flowers each and the seventh one. The plants are about 5 feet 9 inches in height. Growing within a couple of yards of the road a few flowers were stolen last year, and to prevent them being seen the Privet hedge has been allowed to grow up, quite hiding them from passers by. The ground at the base is quite thick with young plants grown from last year's bulbs.—A. O.

Acacia baileyana.—This Acacia deserves all that is said in its favour on page 95, for it is in every way a desirable species, but one that needs a fairly large structure for its development. In the Temperate house at Kew it forms one of the most attractive members of the genus. At present it is seldom met with, but is, I see, included by Messrs. Hugh Low and Co. in their plant catalogue.—T.

Ipomœa rubro-cœrulea outdoors.

On the wall garden at Gunnersbury House this is now one of the prettiest features. The flowers, which are of a peculiarly pleasing shade of blue, are produced in great profusion on the long, trailing growths. We certainly have very few things of the same pleasing shade of colour, and for covering any trellis work or old tree stumps in summer it is most effective. The seeds sown in pots early in the spring will make good plants for putting out as soon as the weather permits, and they soon begin to flower, keeping up a succession until late autumn.—H.

Amaryllis Belladonna maxima.—In the gardens at Gunnersbury House this is now in full beauty. Planted in front of some frames, where it has been for the past four years, it seems very happy. The strong flowering stems carry good heads of the beautiful soft pink flowers, which are of large size, and produced in great profusion. It appears that this Amaryllis only succeeds well in rather a dry position. It is found very serviceable for cut bloom, and if the stems are gathered when the first bloom is open all the others will open in water, and they last for a considerable time.—H.

Statice Suworowi.—This is one of the best plants we have for bedding. I have seen it in private gardens, where it has been very effective. It grows freely and produces its tall branching spikes of pink flowers in great profusion. I have before me some spikes of bloom which were cut about a month ago, and though dried the flowers retain the pretty shade of mauve-pink, and at a distance appear as if freshly cut. This Statice may be raised from seed, which, if sown in January, will flower the same year, or if sown in autumn and grown on in a cool house the plants will be stronger and produce larger spikes of bloom. There are several other Statices which are now seen in the market. Of these Statice Gmelini is one of the best, the flowers being of a clear blue. There is a white variety of this, which is also grown extensively. I find the blue and white are much used by florists; they work in well for sprays and bouquets, and keep for a long time without water, which is a great advantage.—H.

Value of the Loganberry.—I was pleased to note the excellent illustration on page 111 and read the remarks on the value of the above fruit. There will be more interest taken in it when its value becomes better known, and THE GARDEN has for years advocated its culture. It will thrive where the Raspberry fails. It not only grows well, but is a splendid cropper. Years ago many persons planted the American Blackberries when they were sent to this country. They generally grew well, but fruited sparsely. The Loganberry is a great cropper; I have grown it for at least half a dozen years, and my original plants are still the best—so good, indeed, that each autumn we have been obliged to give more room. Last year some of the young growths were over 15 feet in length. For tarts or preserving it is an ideal fruit, larger than the Raspberry, but like it in shape, and of a darker colour. Our best fruits are obtained from north walls. The young growths are laid in each summer their full length, the old fruiting wood being removed when the crop is cleared.—G. WYTHES.

New Peach Peregrine.—On several occasions I have had an opportunity of seeing this new fruit, and it is, in my opinion, a splendid acquisition, fruiting freely without much forcing. It was recently shown before the fruit committee of the Royal Horticultural Society, and, of course, like many other new fruits, it may have been too ripe or under ripe the first time shown; there is always a difficulty in presenting fruits at the right moment. The same week I saw some splendid trees in fruit of this variety at the annual show of the Bishop's Stortford Society, and I was much impressed by its cropping qualities, size, appearance, and splendid flavour. I feel sure this new Peach is too good to be lost sight of. I know we have no lack of good midseason Peaches, but there are none too many that will stand hard forcing. The new Peach Peregrine appears to be a robust grower and sets very freely. I have no

idea of its parentage, but this will soon be known when the trees are distributed. Messrs. Rivers, who have raised so many choice fruits, would not have selected it had it not been an improvement and worth placing in the list of Peaches raised at Sawbridgeworth.—G. WYTHES.

Sweet Peas in bowls.—Sweet Peas are used in many ways for indoor decorations, but seldom are they represented in such pleasing form as they were at the August meeting of the National Amateur Gardeners' Association. On this occasion a competition was arranged for the lady members, and a bowl was filled with Sweet Peas and their own foliage. The successful bowls were charmingly arranged, and crowding was avoided. Flowers of the variety Miss Willmott, of a colour that some describe as orange salmon, were in the leading exhibit. In most of the other exhibits flowers of pink and rosy blush shades predominated, and all looked very pretty. In two or three cases the bowls were placed on raised stands, and the latter covered with white silk cloths. By these means the colours of the Sweet Peas were more pronounced and the general effect considerably enhanced. This is a class that might with advantage be added to the list of competitions in many of the leading societies' exhibitions.

Cottage and allotment gardening (1904).—The examiners' report of the Royal Horticultural Society is as follows: "Whilst regarding with satisfaction the considerable number of papers submitted to them of comparative excellence, there is yet reason to express regret that a large portion of them were, in respect of practical knowledge in allotment and cottage gardening, somewhat crude. Questions relating to the composition of soils and of manures were in most cases answered with ease, but still generally from a 'bookish' rather than from a practical aspect. Candidates in this examination should seek to make themselves familiar with the actual operations needful in any really well-managed garden or allotment during the cultural season, and seek also for defects, if any be furnished, and point out how they may be remedied. Such practice would be of great service when sitting down to answer questions relating to practical gardening. Many candidates had indifferent knowledge as to what constitutes hardy perennials, and less as to the most suitable kinds for garden cultivation, and specially of those suitable for furnishing flowers for cutting. Knowledge with respect to annuals, both tender and hardy, was imperfect. The proper cropping of garden or allotment in winter seemed not to have been fully understood. Still, on the whole the papers have shown better results than were originally anticipated. Some answers were written on both sides of the paper. That practice should always be avoided."

Herbaceous Phloxes in 1904.—In the course of a discussion the other evening at the monthly meeting of the National Amateur Gardeners' Association the chairman spoke at some length regarding his experiences with these charming late summer-flowering plants this season. He led off the discussion by speaking of the beauty of the perennial Phloxes, mentioning, in the course of his remarks, the difficulties growers on dry soils were experiencing. The warm weather this summer had told against the plants, the open position in which they were planted leaving them exposed to the sun from early morning until sunset. In consequence, notwithstanding a good mulching, the plants were shrivelled and the display was most unsatisfactory. Last year they did exceptionally well, owing to the cooler and moister air at that time. He recommended a division of the plants annually, or propagation by cuttings in spring. Growth on old plants should be carefully thinned out and heavy mulchings with good manure and copious applications of water given in the evening of hot days. Attention was called to the charming variety in which the perennial Phloxes can now be obtained, and the chairman suggested the acquisition of a representative collection by those who felt disposed to give this subject their special care. A member whose garden is within four miles of

Charing Cross emphasised the beauty of the Phloxes already referred to, but he could not recommend them for London or suburban gardens. He did not succeed with them in his garden. Another member differed from the previous speaker in this matter, and thought the perennial Phloxes were one of the best subjects for London gardens. He asked where would you see them better grown than they were in Finsbury Park?—C.

Musa Holstii (K. Sch. n. sp.).—Mr. C. Sprenger has received some seeds of this new species from German East Africa. They are like those of *Musa Ensete*, but smaller. The growth is in the way of that named species, but the leaves are not so long, being broader, glossy green, and of a dark brown colour, the edge almost black. They are also more solid than those of the other species. It is a very distinct kind, and stands well in the open at Naples all the year round.

Musa imperialis (Spr. n. sp.).—This new species comes from the mountains of Kamerum, where it is common. It is held in reverence by the natives, who can never be prevailed upon to destroy it when new land is brought under cultivation. It is also planted around the houses. The leaves appear in the spring from the root-stock as in *Musa religiosa*; they are stiff, erect, dull green, glaucous, and with a white border. The growth is enormous, even in a half-shady place.—WILLIAM MULLER, *Vomero, Naples.*

Chrysanthemum Goacher's Crimson.—For some years past early-flowering Chrysanthemum Harvest Home was regarded with considerable favour for its beautiful crimson colour. Previous to its introduction there was nothing of the same colour that flowered so early in the season, and it was heartily welcomed as the beginning of better things. Goacher's Crimson, however, is much better in every way. It has flowers of a brighter shade of crimson than the newer one, and its bright golden yellow reverse gives it an additional charm. There is a fault, however, in the shape of the flowers, the majority being malformed on one side. The habit of the older sort also leaves much to be desired. In the case of Goacher's Crimson we have a plant of strong growth; the shoots are sturdy, short-jointed, and seldom attain a height of more than about 2½ feet. The flowers are of good size, beautiful form, and remain fresh for a long time. The crimson colour in this instance is deeper and richer than in Harvest Home, and the reverse of the broader petals is a shade of golden bronze. Flowering has already begun, and if the spent blossoms are removed the display should be carried well into October. Before the present flowering season has concluded there is good reason for believing many of the older sorts will be completely outclassed.—D. B. CRANE.

THE FLOWER GARDEN.

SWEET WILLIAMS.

IN order to have a good show of Sweet Williams sow seed early and get out the plants now in beds about a foot apart. Thus the stems will next year be so close together that they will sustain each other and make a fine, but varied mass of colour. Too often it is advised that seed be sown during the summer. That is a mistake as far as all hardy biennials are concerned. The month of April is the best time to sow all such things, and if the seedlings are being planted out into their flowering places at the time some would advise that the seed be sown, then fine plants and large heads of bloom are ensured. Sweet Williams specially, if put out late, seldom throw up more than one or two stems, but strong plants will throw up seven or eight stems and carry huge trusses, and if they are of a fine strain, few border plants can excel in beauty a well-flowered Sweet William during July. No special culture is needed for these plants, as they do admirably in any ordinary garden soil, but of course, like all other things, preferring that which is occasionally dug and manured to border soil which is starved by being eaten up

with tree, shrub, or plant roots. Ordinarily these biennials are, with Wallflowers, Stocks, Canterbury Bells, &c., planted out singly into borders. Far better is it to plant in trebles to make a good clump, and, better still, in masses or beds.

One special charm in the Sweet William is that in any varied, as well as fine, strain there are so many diverse markings and colours that the flowers are all the more interesting and enjoyable when they can have close scrutiny. Out of hundreds of plants no two, perhaps, will produce flowers quite alike, at least such is my experience, although some selections seem to favour the ringed forms only, the northern strains being peculiarly of that class, very fine indeed and handsome, but wanting in variety. I am not sure whether in selecting these ringed strains too much has not been sacrificed to secure almost uniformity of marking and smoothness of edge in the pips. The serrated edge is no objectionable feature in these flowers, especially when allied to good size and rich colours. The serrated edge marks the Auricula-eyed especially. These have white eyes, rich coloured grounds, with generally very narrow lacinated edges. As a rule, the pips are not so large as are those of the ringed strains, but the colouring is so beautiful that it is

various markings found in mottled flowers. That they are very beautiful, as well as interesting, must be taken for granted by those who have not seen them. No doubt in time these varied markings will increase wonderfully. These forms add very much to the interest of any strain, as so many diverse colours make a bed of flowers so much the more beautiful. Sweet Williams have two special enemies—grubs when newly planted, should the weather be dry, and fungus in the late autumn, should too much moisture prevail. In the former case the grubs should be sought for when plants collapse and be destroyed. In the latter case it is well to put out the plants in fresh soil the following year. A.

A WILD AND BOG GARDEN.

I SEND you herewith three photographs of my bog garden, which were taken by Mr. F. Bonney on the 4th ult. No. 1 shows a fine group of the Californian giant Saxifrage (*Saxifraga peltata*), which this year is some 5 feet high, growing by the side of a narrow stream with its roots right in the water. At the back are Ferns of various kinds, including the *Osmundas* and the *Ostrich Feather*

till almost midwinter there is a continual change of scene, colour, and effect.

Wolseley, Stafford.

C. M. WOLSELEY.

[We reproduce one of the photographs kindly sent by Sir Charles Wolseley, but our correspondent's notes of the others show the plants that may be used with beautiful effects in such positions.—ED.]

CHRYSANTHEMUMS.

SEASONABLE NOTES.

SELDOME have these looked more promising than at the present time, and providing we get a fair amount of sunshine during the next three weeks or so very fine flowers should be seen in autumn. Plants which are expressly grown for large exhibition flowers will now have practically completed their growth, and all the buds should be secured if possible by the 10th of next month. Though every pains may have been taken to time the showing of these, both as regards striking the cuttings and stopping the plants at various dates, this certainly cannot always be assured, as much depends on the seasons, but in nearly all cases it is safe to assume that if the taking or securing the bud be done through August these may, with a reasonable amount of care and forethought, be seen at their best during the end of October and beginning of November, especially all the large Japanese, as large massive flowers of many varieties take a considerable time to unfold their florets.

FEEDING.

Though this should by no means be withheld take the greatest care in applying the various manures, especially after the bud is first selected, otherwise the flowers will be coarse and lack refinement. It is most unwise at this time to strip the plant of every particle of growth, but leave a reasonable amount of side shoots for at least a week or ten days. Should the weather be hot and dry frequent syringings of clean tepid water should be given during the day, the last application being about 4 p.m. See that every growth is made thoroughly secure by staking and tying in case gales prevail, which we generally experience at this time of year.

INSECT PESTS.

Where earwigs abound vigorous measures must be taken to catch them, the most simple and efficient way of trapping them that I am acquainted with being to cut Broad Bean stalks into lengths of about 6 inches. Tie these to the stakes with small string about 2 feet in length and lodge the trap near the top of the plants. These should be examined every morning and blown out into a vessel of warm water. In addition to this, go through and examine the plants with a lamp after dark, when the pests may generally be caught feeding, as it takes them but a short time to spoil the tender bud. The insect commonly known as the jumper is also a great enemy to the Chrysanthemum, and this year appears to be prevalent. It also pierces both the buds and the young tender tops. These are somewhat difficult to catch, but they must be sought for and destroyed. The points should also be syringed once or twice a week to ensure freeing them of thrips. These tiny insects, which can hardly be observed with the naked eye, have a strong liking for some varieties, and before they can be observed will do much mischief, so much so that the blooms will be useless.

RETARDING THE BLOOMS.

Much may be done in this respect, particularly if taken in hand at an early stage, and it is useless to leave them to the mercy of the weather



IN THE WILD GARDEN AT WOLSELEY, STAFFORDSHIRE.

unwise to strive to eliminate it. Without doubt size of pip in the Sweet William commands material attention. There is a boldness and character about these fine trusses with pips as big as Polyanthus flowers, also very flat and rounded, that even rich colours cannot counteract. Generally the greatest size is found in light flowers, though never in pure whites, and again less so in deep red and crimson selfs.

This latter form is one which much needs developing, as whilst we have superb colours and beautiful quality in the dark selfs, there is room for increase of pip. Fine as Sweet Williams were a few years ago, the advance made in the quality and size of pip in these dark hues is remarkable. Some of the most striking flowers are to be found in those which are mottled, speckled, or flaked. These show wonderful diversity and beauty, but seem to some extent to be governed in their colouring by weather, as cold wet weather will in some cases produce self flowers, whilst warmth will bring out the mottled or marked colours. That variation, however, applies more to the mottled flowers of the Auricula-eyed strain than to those of the bolder tinged strain. It is impossible to describe the

Ferns (*Struthiopteris pennsylvanica* and *S. germanica*), which have grown to a height of 6½ feet. Beyond these are plants of the noble-foliaged *Gunneras*, with some Foxgloves beyond.

No. 2 shows the effect of a bold group of Foxgloves, chiefly white, from the north side. In the foreground are Irises growing by a wet ditch, and beyond these a splendid group of *Primula japonica*. These have quite naturalised themselves here, and seed all over the place, even on to the cinder paths. To the left is a bold group of *Funkias* with Ferns at the back, and on the right a group of the noble *Spiraea gigantea*.

No. 3 shows the same picture from the south side. In the foreground are Asters, Michaelmas Daisies, Phloxes, and other plants. The bog garden was originally an old disused pool, which had been neglected for very many years, and was full of Nettles and other weeds until it was taken in hand some ten years ago and planted with various bog-loving shrubs and plants and innumerable bulbs, such as Daffodils, Crocuses, Snowdrops, Grape Hyacinths, and Bluebells. The Ferns, Irises, *Primula japonica*, *Funkias*, and *Spiraeas* simply luxuriate in it, and from very early spring

when the buds begin to crack. Though no injury may be apparent for some time to come, sooner or later decay will set in, even after the flower has partly developed. This applies, of course, to large blooms. A rough shelter should be made in a north position which can easily be accomplished with any spare frame-lights. The more air these can be given the better, and overcrowding strictly avoided. Give one or two thorough dustings of black sulphur to prevent mildew spreading. No syringing will be required and much less water at the roots. When in doubt of any particular variety being too late these should at once be placed under glass in quite a cool late house. At least a good ten days may be gained by so doing, and many of the varieties, especially so the later flowering of the incurved section, are much benefited by such treatment.

TRAINED SPECIMEN PLANTS.

These will require abundance of water, both clear and liquid manure, as they are generally grown in the smallest size pot possible, and to maintain a large quantity of healthy foliage and perfect their flowers they need much attention and assistance. As I have frequently pointed out, a reasonable amount of perfectly-developed blooms which show their true character are preferable to huge ungainly plants with little or no quality. Over-training, too, is equally bad, and should not be encouraged, either for exhibition or home use, though it is necessary to tie out and train the shoots in the early part of the year. These should afterwards be allowed to grow away freely and assume as natural an appearance as possible. The growths should be temporarily protected, but the final staking should not be done for some time. Endeavour to arrange the plants in as open but sheltered position as possible till the end of the present month, when steps should be taken to place them under glass and complete the disbudding. Arrange the plants near the glass and admit abundance of air both day and night. Give the plants as much room as possible between each.

POMPONS AND POMPON ANEMONES.

These, when grown in bush form, should have each shoot neatly but securely tied to one centre stake. These will also require liberal feeding and a reasonable amount of disbudding. At the same time it is well to bear in mind that this can easily be overdone, and when this is the case it robs the plant of much of its beauty. A sufficient thinning, therefore, should only be done to enable each bud to develop perfectly.

SINGLE SORTS, LATE FLOWERING.

In fact, all sections grown for decoration, will require much the same treatment. One important rule to observe is that now and while the plants remain in the open as much room as possible should be given, so that abundance of air can reach them. Sulphur should be dusted well on the under side of the foliage and Tobacco dust frequently used on the points.

SUMMER FLOWERING VARIETIES.

These charming varieties, which are being more grown every year for the flower borders and cutting, are now beginning to make a fine display, especially where a border is devoted entirely to them with the colours and heights suitably arranged. The best way of supporting them is to use several stakes to a plant and tie out the shoots so as to enable the flowers to expand better, and by so doing a finer display is obtained. Dust the points with Tobacco powder directly the first traces of insect life are noticed. Give good soakings of clear and liquid manure water in dry weather, and keep the surface soil stirred with the Dutch hoe.

The early-flowering varieties have given a fresh joy to the autumn garden, as the more recent sorts show a greater range of colours than those of a few years ago, when washy pinks and whites prevailed. The golden orange, clear yellow, dark crimsons, and clear whites are very effective in border or shrubbery.

E. BECKETT.

Aldenham House Gardens, Elstree.

THE CARNATION IN THE GARDEN.

IF the Rose holds the first place in the garden, the Carnation surely must come next in importance, though the Lily may surpass it in grace, and the Carnation has this merit—that in gardens near towns or in smoky districts it will thrive quite as happily as in pure air, while the Rose demands both shelter and pure air. In the country, however, it must be confessed that hares and rabbits work havoc among Carnations, and make it impossible to grow them in many gardens unless carefully wired in from all attacks of their enemies.

For this reason, and for others which I shall specify, I want to suggest that the Continental plan of growing Carnations in boxes or pots on balconies, house-tops, or any such place of vantage is worth considering. In Spain Carnations are grown almost entirely in this way and the flowers hang down naturally, so that the guard petals are then able to fulfil their function and shelter the centre of the flower from sun and rain, thereby causing the centre to fill up, perfectly protected meanwhile from the elements. I fancy that some of our exhibitors would find the quality of their blooms enhanced were they allowed to hang down in this way, and no one who has visited Spain in late spring will deny the beauty of this mode of growth.

Carnations are found growing wild on crags and on ruined walls, so it is evident they do not prefer a low or flat situation, though at first they may make very strong growth in such a position when the soil is rich, but winter rains and autumn dews will cause these vigorous and sappy shoots to canker and rot off at the base by another spring, disappointing the gardener who looked for success in the summer.

The real difficulty in Carnation growing is the short duration of the plants. What is uglier than a nurseryman's bed of rooted layers planted in rows in a stiff bed, each with its flower-stem stiffly tied up and the buds probably severely disbudded, and this more or less must be true of all freshly planted Carnations. The object, then, of picturesque Carnation growing is to keep your old plants in health for two or three years, when a luxuriant mass of growth and flower is produced. When this is achieved the beauty of the Carnation is quite undeniable. It is certain that a Carnation plant will last longer in health when its collar is screened from damp by stones or any such protection as is afforded by steeply sloping ground. Extremes of heat are quite as injurious as winter cold, for the Carnation prefers an equable climate that is neither hot nor cold, such as is found over the greater part of our islands.

So then, if the Carnation is to last long in the garden you love, plant it on banks with plenty of big stones about to screen the collars of the plants from moisture and cold, rendering the temperature equable. Let the aspect be east or west rather than south, and let the wind blow freely over it, for no plant enjoys wind more than the Carnation. Most gardens have a wind-blown corner. Why not plant your Carnations there, and shelter the clumps with stones? When you can, let the flowers and foliage hang down naturally, and you will achieve in the second summer a tangled mass of flower and foliage quite unlike the conventional Carnation bed, and infinitely more enduring. The so-called Tree Carnation is the most useful for autumn flower-beds, as the handsome but more formal and summer-flowering florist's Carnation does not continue

more than a month or five weeks in flower and, moreover, does not strike so readily from cuttings as the Tree varieties do.

By the sea and on sloping banks the spicy Cloves endure for years, and need only an occasional layering, so when there is the opportunity of making a dry wall with plenty of earth behind, moist and yet well drained, there is the place for a long-lived display of Carnations, which will give the amateur several years of pleasure before it needs thorough renewal or overhauling.

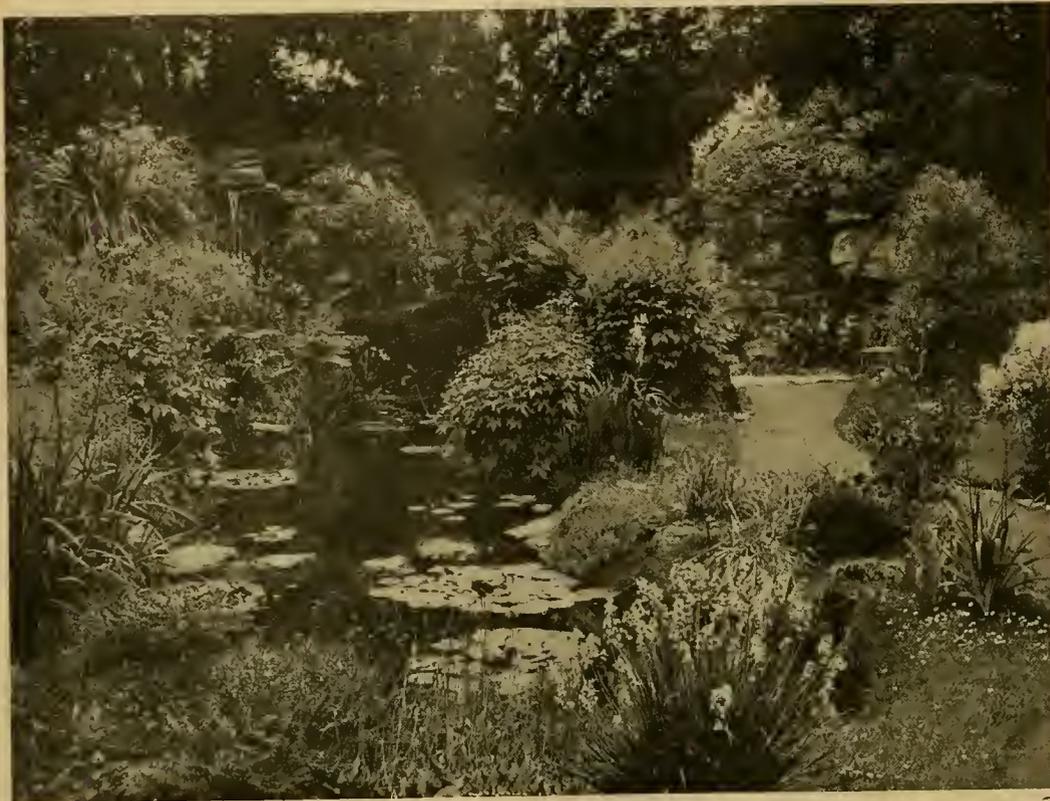
No one regrets more than I do the impossibility of the culture of Malmaison Carnations in the open garden. So fragrant, so beautiful, so large and handsome, it seems quite a mistake that they will not exist save under very special conditions. Will the gardener of the future provide us with a race of hardy Malmaisons? If so, I think he will gain a good reward both in thanks and in gold. Carnations are particularly acceptable in the old-fashioned kitchen garden herbaceous border. Their beauty is not suited to the formal garden, and when planted formally should only be used for cut bloom and for propagation, two things that are indispensable in the modern garden. Moderate disbudding I would always allow. Some varieties, indeed, require it; the flower-buds are so congested that all cannot expand freely. It is, however, a matter of individual taste, and should be left an open question.

How best to determine what Carnations shall be grown is another matter that needs judgment. The varieties that grow well on the strong and cold soils of the northern portion of England do not like the hot and light soils of the south, while some of the yellows and soft reds and pinks do much better in the lighter soils. The old and fragrant Clove is apt to die out in the south in hot seasons, while in the north a wet year—like last summer—causes heavy losses the following winter. There are a few extra enduring named varieties I will mention, such as the well-known Raby Pink that is still well to the fore after more than three score years wear and tear, but its flower is small as well as fringed deeply, a fault in some folks' opinion, though not in mine. Of whites I still put Trojan as the most reliable of border Carnations, fine in every way save its lack of scent. Of pure scarlets there is a greater choice; indeed, this colour is always of hardier growth than any other that I know, and it is a matter of opinion whether the very smooth-edged varieties are as effective as the rougher-edged sorts. Of deep crimsons I have found Mephisto the most enduring and hardy, and of pure yellows there is nothing to touch Miss Audrey Campbell, as far as I know. Of rose reds no variety is more enduring and handsome than Belladonna. Of orange shades Midas is still finest, and of lighter buffs Mrs. Reynolds Hole is yet worthy a place, though not good on strong soils.

The Picotees, especially the modern ones raised by Mr. Martin Smith, are extra vigorous and hardy, but after a few years they are apt to lose vigour when grown in the open border, while those grown in pots retain their health to a far greater degree, which proves that much water in winter is death, more or less lingering to the Carnation.

The Tree or perpetual Carnation is not enough used for summer use in my judgment. It is far more answerable for bedding, and can equally be propagated for summer and autumn flowering as for winter culture under glass.

With an edging of Phlox Drummondii pegged down outside the Carnations an uncommonly bright display can be achieved, and the long



THE ROCK GARDEN AT LILFORD HALL.

sprays of autumn bloom are lasting for cut flower purposes. Perhaps someone has already tried some of the strong-growing American varieties in this way. The Carnation is always so welcome as withstanding rain when half open that it must prove very useful in stormy autumn weather until winter is upon us, and the hardy Chrysanthemum is ready to supply the demand for cut flowers.

E. H. WOODALL.

THE ROSE GARDEN.

PROPAGATING ROSES.

AT this season, when so much can be done in propagating Roses, the following notes taken from "Roses for English Gardens" may be useful:

There are several other ways of propagating Roses, but the one most frequently employed and the most satisfactory is by budding.

Dwarf Stocks.—Many people imagine that all the dwarf or bush Roses they see in gardens are growing on their own roots, whereas in ninety-nine cases out of a hundred the roots of the plants are those of some Brier stock. The three stocks most in favour at the present time are the Brier-cutting, seedling Brier, and the Manetti.

The only difference between the Brier-cutting and seedling Brier is that the former is obtained by making cuttings of the ordinary hedgerow Brier, while the latter is the result of sowing the seed of that Brier. They are both excellent stocks, and there are scarcely any Roses which will not unite with and grow well on either of them. The roots of the Brier-cutting are thrown out more horizontally than those of the seedling Brier, and are therefore more accessible to light and air and to any liquid or other surface nourishment that may be given them. On the other hand the downward tendency of the numerous roots of the seedling Brier enables the Roses budded on it to withstand drought better, and it is if anything the more permanent stock of the two. The Manetti stock answers

well in some parts of the country, such as the northern districts of England, and on certain soils, but cannot be so generally recommended as the other two stocks that have been mentioned. In most cases the roots of the Manetti, which is a foreign Brier, gradually decay, and the Rose budded on it, after a time, either dies outright or is kept alive by the roots thrown out round the collar of the plant by the Rose itself. It has another great defect in that the foliage of the Manetti is not easily distinguishable from that of many cultivated Roses, so that the suckers from this stock often pass unnoticed. Indeed one seldom goes into any ordinary garden without meeting with these suckers. In many cases the Rose has entirely disappeared, and the shoots of the stock alone remain.

It is not necessary to explain the method of raising any of these dwarf stocks, as all three can be obtained early in the autumn at a cheap rate from any Rose nurseryman. As soon as they arrive they should be planted 1 foot apart and 3 feet between the rows. For the convenience of budding they should be planted only about 4 inches deep, and afterwards earthed up like potatoes as far as the main stem extends.

Standard Stocks.—The only stock used for standards, half-standards, and dwarf standards is the hedgerow Brier. These may be purchased during November from a nursery, or any local labourer used to such work will obtain as many as required from the wild Briars in the district. These stocks should be trimmed of any side shoots, cut to the length wanted, and planted 2 feet apart and 4 feet between the rows. The root should be cut away to within, say, 2 inches of the stem and not be left like a huckey-stick. The best stocks are those of the second year's growth.

Budding Standard Stocks.—Budding is one of those things which cannot readily be learnt from printed instructions, but which any proficient in the art will be able to teach the beginner in a few lessons, and which a little practice afterwards will soon render quite easy to him. A few hints may, however, be useful when the mechanical process has been mastered. For instance, in budding standard stocks a single rather long slit is preferable to the somewhat shorter T-shaped one usually employed, as the transverse cut weakens the shoot of the Brier

and often causes it to snap off in high winds where it has been made. It is also a good plan to give the roots of the stocks a good drenching with water before they are budded, as it will cause the bark to come away from the wood more readily than it otherwise would have done. Budding can be done at any time during the summer; the early part of July is usually the best period of the year to begin, as the majority of the shoots are then in that half-ripened condition which is so desirable—that is to say, neither too sappy nor on the other hand too old and dry. The shoots of the Rose from which the buds are taken should be in the same half-ripened condition, and the buds themselves only moderately plump and consequently quite dormant. If the bark does not come away readily from any shoot when the handle of the budding knife is inserted, it is useless to try and bud on it. When the prickles on either the shoot of the Brier to be budded or on the shoot of the Rose from which the bud is to be taken come off easily and there are at the same time fresh green leaves at the end of that shoot, it is certain to be in the best condition possible for budding. The Hybrid Perpetuals and Hybrid Teas will be found easier to bud than the Teas. The buds should be tied in moderately firmly but not too tightly. In a fortnight's time they may be tied afresh, this time more loosely. After budding, none of the budded shoots of the Brier should be touched with the knife until November, when the longest and most vigorous may be shortened about one-third of their length.

Budding Dwarf Stocks.—The stocks should be kept well earthed up until budding time, when the surrounding soil should be removed with a small hand fork from a few of the Briars as they are wanted. The main stem should then be cleaned with a rag and the slit made in it for the insertion of the bud. The T-shaped slit, previously objected to in the case of standard stocks, may here be made, and a single bud (or if preferred two buds close together) be inserted in it. The buds should be inserted quite low down in the stem near the roots and not in the upper part of it. The instructions given when treating of budding standard stocks as regards watering, the time of year, the selecting of the buds, and also as to tying and retying them after insertion, apply equally to those dwarf stocks.

Raising Rose Plants from Cuttings.—Now that excellent Rose plants can be obtained ready made, as it were, from the nurseries at such reasonable prices, it seems hardly worth while trying to raise them from cuttings, besides which, budding is a much more certain and quicker method of increasing a stock of Roses. To ensure the greatest measure of success the following directions may be followed with confidence, as they are the outcome of the experience of one of the most skilful raisers of own-root Roses that we have ever had. A Cucumber or other cold frame should be placed on hard ground and filled with a mixture of loam, sand, and leaf-mould in nearly equal proportions to the depth of 6 inches. This compost should be made very firm and afterwards well watered. In a few days it will be ready to receive the cuttings. The best time to commence operations is towards the end of September. The cuttings should be taken from shoots which have borne the first crop of Roses of the year, as they will then be in the half-ripened condition required. They should not be cut from the plant but stripped off with a slight heel. The cuttings should be about 4 inches in length and thus prepared. All the leaves should be cut off except the two lower leaflets of the two upper leaves. They must be dibbled in and made very firm at the base or they will not strike. The cuttings should be inserted 6 inches apart and 3 inches deep, leaving the remaining inch with its leaflets to peep out above the compost. After the cuttings have been planted they should for a time

be kept close, admitting a little air to prevent the leaflets damping off. In severe weather the frame must be covered with sufficient matting or other material to keep out frost, or the cuttings will be lifted by its action on the compost and so prevented from rooting. Early in May in the following year they should be taken up with a ball and potted, kept close for a time in a frame, and then gradually exposed to the air and sunshine. In August they will be ready to plant out. The Roses which best answer to this treatment are the stronger growing varieties, for the moderate growers, if they succeed at all, take a long time before they make good plants.

Rose cuttings may be struck in the open ground under a north wall or other shady spot, planting them in sandy soil as above advised; but owing to the disturbing influence of frost and other causes the percentage of successes will not be nearly so great as when they are afforded the protection of frames.

Grafting.—This method of propagation is scarcely ever employed by amateurs, and it is therefore unnecessary to describe it here. It is used by nurserymen, principally for raising pot Roses and as a rapid way of increasing the stock of any new or rare variety.

COMPANION TO CRIMSON RAMBLER.

HERE I find the Himalayan Briar *Brunonia* comes out exactly at the same time as *Crimson Rambler*. The two plants run about 20 feet up the north side of my house and over the window of a bow. This year the white was the finest, as the *Rambler* was rather blighted, but last year they both did equally well at the same time. It is not an ideal place for a *Crimson Rambler*, but both in the open would make a fine picture.

Reigate.

J. R. D.

NOTABLE GARDENS.

LILFORD HALL.

LILFORD HALL, near Oundle in Northamptonshire, the seat of Lord Lilford, is a beautiful old mansion, surrounded by an extensive park, and containing within its domains exceptionally charming grounds laid

out in both the regular and irregular styles. Having been built of a very hard limestone, Lilford Hall is so well preserved that few would suspect its antiquity.

It was rebuilt during the reign of James II., when that King's Attorney-General, Sir Thomas Powys (great-grandfather of the first Lord Lilford), acquired this extensive property, which he partly remodelled. But many of the noble trees in the large park evidently existed long before that period, and now impart to the landscape that dignified appearance of ancient grandeur which is sought in vain in parks of more recent construction. A few weeks ago I was permitted to take some photographs of the house and grounds, and three of these are here reproduced. The first picture shows the house seen from a distance. The spacious mansion is built in the Renaissance-Tudor style, with handsome gables and massive oriels, which in the photograph, however, are mostly hidden by the greenery of the trees and shrubs in front. The whole south front is covered by a magnificent *Wistaria* (probably the finest specimen in this country), whose wealth of blossoms intermixed here and there with climbing *Roses* produces a charming effect. From the broad

terrace, bounded by pierced parapets, exquisite views are obtained of the large park with its noble trees, its picturesque vistas, and its broad expanse of green sward traversed by the River Nene, and enlivened by grazing herds of Afghan cattle and splendid deer. Adjoining the terrace is the formal garden. This is laid out on a large scale, in keeping with the style and character of the house. It has elaborate flower-beds and gentle slopes, and is encompassed by a low wall of pierced stone balustrading, by the side of which a line of Irish Yews—as seen in the illustration—completes the design. Among the flower-beds within this enclosure a great number are planted with that exquisite dwarf *Rose Hermosa*, which, though difficult to grow in some places, luxuriates at Lilford Hall. From the iron gates seen in the first picture a broad grass walk leads to other portions of the grounds, comprising extensive pleasure grounds, a children's garden, a *Rose* garden, a very large walled garden, and a rock garden.

The present Lord Lilford's father was acknowledged to be the greatest British authority on ornithology. No wonder, then, that the grounds of Lilford Hall abound in rare birds of all descriptions. Cranes from distant countries inhabit the shores of lakes and ponds filled with rare ducks, geese, and waterfowl from all corners of the globe. Song birds of all kinds are everywhere, and even talking ravens with an almost unearthly bass voice greet the visitor.

The huge walled garden, though chiefly devoted to fruits and vegetables, has its ornamental features nevertheless. Many of its borders are filled with flowers. *Eremurus robustus*, with flower-stems 9 feet high, was in full bloom at the time of my visit; but perhaps the greatest feature of this walled garden is the green walk, a long, straight grass walk with a broad herbaceous border backed by espalier fruit trees on either side. The herbaceous plants include *Tree Pæonies* and other choice flowers arranged with a view to successive effect. In another part of this garden are well-kept *Yew* hedges of enormous

proportions, forming a most fitting background to the *Roses* and other brilliant flowers displayed in front of them.

THE ROCK GARDEN AT LILFORD HALL.

About five years ago another feature was added to the grounds in the shape of a rock garden, in the formation and embellishment of which Lady Lilford took a special interest, inspired, no doubt, by recollections of the splendid assortment of mountain plants grown in profusion in the beautiful grounds of her Devonshire home.

The rock garden is reached by a long walk winding through a pleasant part of the grounds, where choice shrubs and especially *Lilacs* and *Hawthorns* abound; but the nearest approach to it is from the formal garden by means of the broad grass path shown in the first illustration. As a first introduction single rocks and small rocky beds crop up from the grass here and there, some of them protruding from the sward itself, while others rise from carpets of such dwarf plants as *Thymes*, alpine *Veronicas*, mossy *Saxifrages*, and other things. Presently larger beds of low rocks are reached, devoted chiefly to the smallest and choicest rock plants. The latter include such little gems as *Pentstemon Halli* and *Erigeron trifidus* from Colorado, *Petrocallis pyrenaica*, *Androsace lanuginosa*, *Dianthus neglectus*, *Saxifraga squarrosa*, and many others. On approaching still nearer, the picture shown in the second illustration comes into view and the Lily pond is reached. Looking at the luxuriant growth covering the greater portion of the banks of this pond, no one would suspect that the foundation of this scene is really an ugly cemented basin with all its artificial appearance carefully hidden from view. In constructing rock gardens I avoid cement as much as possible, but in this case it was impossible to do without it. It will be seen from the illustration (No. 2) that neither stones nor plants form a complete fringe around the pond, but that the margin is interrupted here and there by grassy banks, which in some places dip down into the water, and in others are studded with irregular groups



LILFORD HALL (THE SEAT OF LORD LILFORD) AND THE FORMAL GARDEN, AS SEEN FROM THE PARK.

of Irises and other moisture-loving plants. The plant with grass-like foliage in the foreground of the picture is *Libertia formosa*, which, with its handsome white flowers, is very effective. Immediately to the left of this is a large batch of *Primula rosea*. This is planted in such a way that its roots can reach the water. It had finished blooming when I took the photograph, but the flower-stems are still visible, and indicate by their unusual length how thoroughly the plants feel at home. *Iris Kämpferi*, planted with its crowns well out of the water, but with its roots within reach of the liquid, has done equally well, while *Iris sibirica* and other species enjoy positions a little higher up where the water of the pond does not touch their roots. Among other plants in the illustration are *Hemerocallis*, *Spiraea astilboides*, *Astilbe rivularis*, *Spiraea Aruncus*, *S. palmata*, and others too numerous to mention. In the background are *Yuccas*, *Ferns*, and Japanese Maples, while garlands of *Clematis* spread over a prominent rock, and Tree Lupins half drooping send showers of flowers hanging over the tallest mass of rocks, at the foot of which a shady nook has been specially prepared for *Cypripediums* and other hardy Orchids. A double waterfall, of which a portion only is seen in the picture, feeds the Lily pond, where the best and newest of choice Water Lilies show by their luxuriant growth and abundance of flowers how much they feel at home. At the back of the rock garden seen in the illustration on page 138 is an old Fern wall, built with large stones in imitation of rock. This was constructed some years ago by the present Lord Lilford's uncle. In several places this has been left intact, and was blended with the new work done recently. Access to the flowers in and around the pond is facilitated by stepping-stones, which in one of the pictures may be observed right across the pond. A still better view of this stepping-stone bridge is afforded by the third illustration, showing a closer view from another point. The figure in this picture is that of Lord Lilford's head gardener, Mr. Wilson, who, since the construction of this rock garden, has not only made himself thoroughly familiar with the names of the many hundreds of varieties of rock plants used, but takes also the keenest interest in studying them. By careful attention he has made the rock garden a complete success.

Elmside Exeter.

F. W. MEYER.

TREES AND SHRUBS.

HYDRANGEA HORTENSIA VAR. LINDLEYI.

HYDRANGEA HORTENSIA and the majority of its varieties cannot be said to be good outdoor shrubs about London, as they are usually cut to the ground during winter and flowers are therefore absent. The variety under notice, however, is much hardier than most of them, and a fair quantity of flowers usually appear, while occasionally we are rewarded by an extra fine display, as is the case this year. The wood of this variety is more wiry and firmer than that of most of the others, while the inflorescences are from axillary instead of terminal buds, so that in the event of immature points being injured by frost, the lower flowering buds are left unharmed. In addition to the wood being different from that of the type, the leaves are also distinct, being much smaller and less fleshy. As a rule a number of

shoots. The flower stalks and calyx are very hairy, reminding one somewhat of those of *R. hispida*, but the hairs are shorter and softer than in that plant. Seeds ripen in this country, and good-sized trees can soon be obtained from them. At Kew this species is now, the first week in August, just coming into flower, and by the end of the month it will be a fine sight.

HYPERICUM HOOKERIANUM.

At this season of the year the different St. John's Worts assert themselves, for most of them are now in bloom. The genus *Hypericum* is an extensive one, and representatives occur in most of the temperate regions, several being natives of Great Britain. The species under notice, which, by the way, is often known as *H. oblongifolium*, is one of the finest of the genus, though it has the drawback of not being perfectly hardy in severe winters, but the last few have not subjected it to any great strain in this respect, consequently it is in many districts an object of great beauty just now. It forms a rather upright shrub, with reddish branches

clothed with glossy, dark green leaves, while the flowers, which are in clusters at the points of the shoots, are of a rich golden yellow colour, and fully 3 inches across. This *Hypericum* is a native of the Himalayas, and was introduced into cultivation by Messrs. Veitch, through their collector Thomas Lobb, about fifty years ago. An exceptionally severe winter usually plays considerable havoc with it. As there are about 150 species of *Hypericum*, and the flowers of all are of some shade of yellow, it is evident that in most places a rigid selection is necessary. Of the remainder the following, limited to the shrubby kinds, are all of especial merit: *H. aureum*, North America; *H. calycinum* (Rose of Sharon), Levant; *H. elatum*, North America; *H. moserianum*, garden hybrid; *H. patulum*, Japan; and *H. prolificum*, North America. T.



STEPPING-STONES ACROSS LILY POOL IN LORD LILFORD'S ROCK GARDEN.

inflorescences are borne from each stem, the individual heads being from 3 inches to 4 inches across, and composed of eight or more sterile flowers and numerous fertile ones. The latter blossoms are small and blue, the former white when they first open changing with age to red. In spring it should be pruned, cutting out weak shoots and the points of the branches just above the stoutest buds. As it blooms during July and August it is worth looking after, as flowering shrubs are then scarce.

ROBINIA NEO-MEXICANA.

THIS is from the Southern United States, and is one of the lesser-known Robinias, and also one of the most ornamental. It is of rapid growth, and makes a good sized tree, with long, semi-pendulous branches. The leaves are 9 inches to 1 foot long, and are made up of a dozen or more pairs of leaflets of oval shape. The flowers are deep pink in colour, and are borne in dense racemes from terminal buds and also from axillary buds near the ends of the

branches. The flower stalks and calyx are very hairy, reminding one somewhat of those of *R. hispida*, but the hairs are shorter and softer than in that plant. Seeds ripen in this country, and good-sized trees can soon be obtained from them. At Kew this species is now, the first week in August, just coming into flower, and by the end of the month it will be a fine sight.

OUR EARLIEST LEBANON CEDARS.

THE history of the Lebanon Cedar since it has been an object of culture in this country is probably more interesting than that of any other ornamental tree of exotic origin. During the comparatively brief period that has elapsed since it was first planted in Europe it has been intimately connected with the history of modern gardening. No tree has had so much attention bestowed upon it, none has been nurtured with such fostering care, and no tree has imparted such a distinctive character to the garden landscape as the Cedar of Lebanon. Its stateliness of growth, absolutely different from that of any other tree, was at once recognised by the tree planters of a few generations ago. To our tree-loving forefathers we are indebted for the noble tree growth that is now so important a feature in many of our finest gardens, and to their forethought

some 200 years ago are we also indebted for our magnificent Cedars. But where are the Cedars that planters nowadays mean to bequeath to generations yet to come? One may travel throughout the length and breadth of these islands and meet with but very few young specimens of the Cedar of Lebanon that will take the place of the venerable examples that must at no distant date fall victims to the ravages of time. Where are we to look for successors to the Cedars at Warwick Castle, Goodwood, Plains Hill, Gunnersbury, Linton, Gattou, and a few other places? True, at Warwick there are some half-grown Cedars that will in time occupy the place of the grand trees whose ponderous boughs overhang the Avon; but in nine places out of ten where old Cedars exist there are none to be seen to take their place. In all probability the numerous old Cedars that are now to be found in English gardens are the outcome of a short-lived fashion, such as that which obtains nowadays of planting all kinds of coniferous trees, whether suited to the climate or locality or not. No doubt it was the correct thing about a century ago to have at least one or two Cedars of Lebanon about the house, and it so happened that the subject taken in hand was just the tree whose merits rendered it worthy of being handed down to posterity. Would that we could hope that even a tithe of the trees which fashion bids us plant at the present time would develop into such noble growth as the Lebanon Cedar. If this tree had been planted in the same proportion as the Wellingtonia, we might in truth congratulate ourselves on the provision we have made for our heirs in the matter of ornamental planting. It would be folly to hope that the Wellingtonia will ever make an ornamental tree in the sense that the Lebanon Cedar is, for while in its youth it is as formal as it can well be, it is, travellers tell us, absolutely ugly in its old age. The near relations of the Lebanon Cedar from the Atlas and Himalayan Mountains, however, are receiving their due meed of attention from tree planters, particularly the Deodar, on account of the gracefulness of its adolescent stage. The Atlantic or Atlas Cedar, the African representative of the Lebanon species, is no doubt the more valuable of the two, and far more suitable for our climate generally than the Deodar, which is a tree for particular localities only. There are numerous examples about the country of the Deodar having been planted in ill-judged positions, the consequence being an array of miserable starvelings.

According to the "Hortus Kewensis," compiled by Aiton, the date of the first planted Cedar is 1683, though this must be incorrect, inasmuch as there are records of a tree which was planted at Brethby Park, in Yorkshire, in 1676. That the Lebanon Cedar was not planted or even known in this country previous to that date may be inferred from the fact that no mention is made of it by Evelyn in his "Sylva," which appeared about the year 1664. Aiton's account was no doubt founded upon the celebrated trees in the Apothecaries' Garden at Chelsea, planted in 1683, and which were supposed to have been the first planted in the country, and probably in Europe. Though Evelyn does not mention it in his "Sylva," he is, according to Loudon, supposed to be the introducer of it into Europe. In tracing out the modern or garden history of the Lebanon Cedar, Loudon has compiled

in his "Arboretum" a long account concerning the earliest planted trees, which embodies many interesting little incidents in connection therewith. He says that there were Cedar trees at Enfield and Hendon which were said to have been planted by Queen Elizabeth, but there seems to be no authentic memoranda in corroboration of this assertion. There can be no doubt that the Cedar in the Chelsea Botanic Garden was among the earliest, if not the first planted, specimen. It has been, however, cut down. Contemporary with the Chelsea planted Cedars are those, no doubt, at Syon, Gunnersbury, Kew, and Chiswick, all of which still exist. There were also some famous trees years ago at Whitton, then the residence of the Duke of Argyll—the tree-monger, as he was then called—who appears to have also planted the first Cedars in Scotland at Hopetoun House, but the date of this planting seems to have been several years later than the trees planted about London.

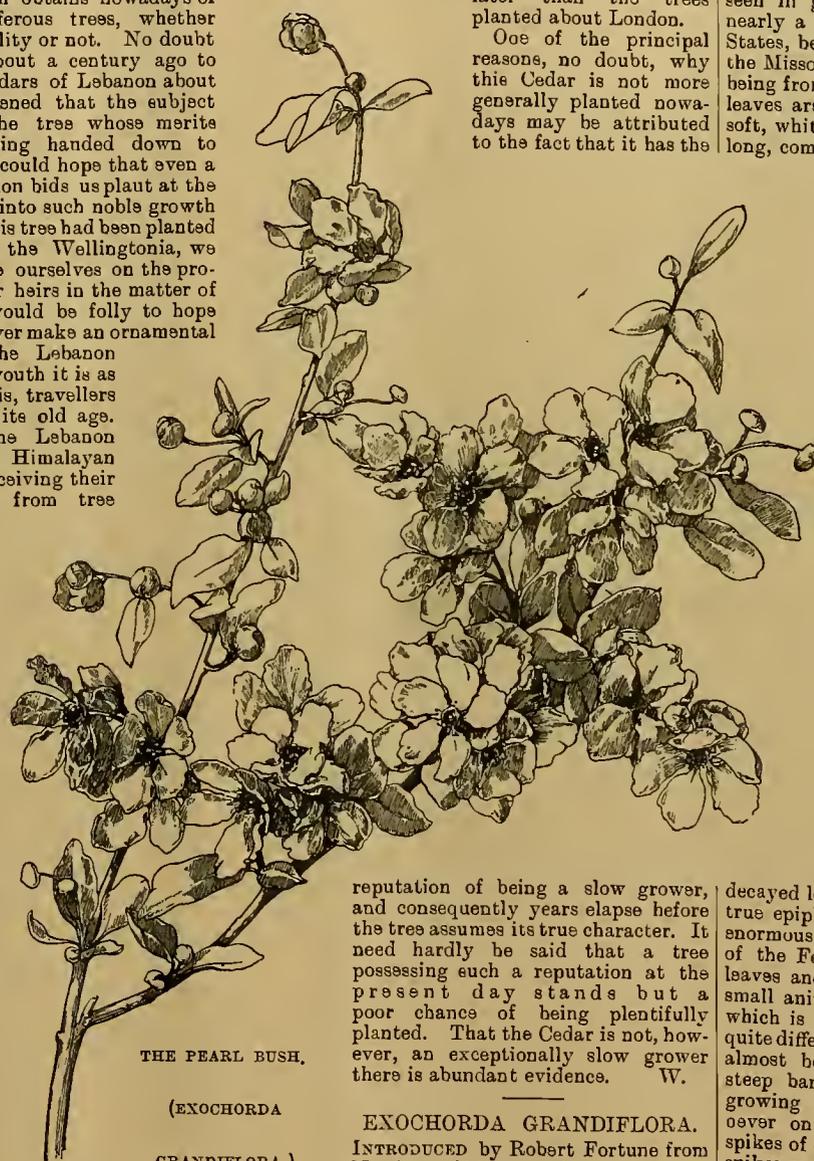
One of the principal reasons, no doubt, why this Cedar is not more generally planted nowadays may be attributed to the fact that it has the

back branches may be trained. It should not be very closely pruned. That the chief factor in the free production of flowers is plenty of sunshine in the late summer and autumn is seen by their abundance this spring. Its comparative scarcity in gardens is due probably to the slowness with which it has been propagated, the only methods successfully adopted, up to within the last few years at any rate, being layering and division. Some years ago, however, it fruited and produced seeds at Touraine in France, so from this source young plants may possibly be obtained in future. The species flowered for the first time at Messrs. Standish and Noble's nursery at Bagshot in May, 1854.

AMORPHA CANESCENS.

THIS is an interesting leguminous shrub rarely seen in gardens, though it has been known for nearly a century. It is a native of the United States, being found in Louisiana on the banks of the Missouri and Mississippi. In stature it is low, being from 2 feet to 3 feet only in height. The leaves are greyish through being covered with a soft, whitish down, and are 3 inches to 4 inches long, composed of twenty-five or more tiny leaflets.

It blooms in July and August, the flowers being small and purple, with golden anthers, and in large, terminal panicles. It succeeds in loamy soil, and requires to be pruned fairly hard each spring, the principal shoots being well shortened and very weak ones removed. For a small bed or for a group in the shrubbery it is interesting, especially to those fond of uncommon things. W. D.



THE PEARL BUSH.
(EXOCHORDA
GRANDIFLORA.)

reputation of being a slow grower, and consequently years elapse before the tree assumes its true character. It need hardly be said that a tree possessing such a reputation at the present day stands but a poor chance of being plentifully planted. That the Cedar is not, however, an exceptionally slow grower there is abundant evidence. W.

EXOCHORDA GRANDIFLORA.

INTRODUCED by Robert Fortune from Northern China over forty years ago, this shrub has not yet become at all well known; yet it is not only very pretty, but quite distinct. It is nearly allied to the Spiræas, and has, indeed, been known under that name. In the open it is a rather spreading, rounded bush 6 feet to 8 feet high, and bears in April and May a profusion of pure snow-white flowers. The leaves are 1 inch to 2 inches long, obovate, and quite glabrous. The flowers occur in short, erect racemes, each of them 1 inch across, the five petals being of elliptical outline. Although it succeeds very well in the open, the best results are obtained by growing it against a wall, to which

ORCHIDS.

TWO NEW CYMBIDIUMS.

MESSRS. SANDER AND SONS of St. Albans send an interesting note which they have just received from their collector Mr. Micholitz, respecting the habitat and conditions under which he found *C. Sanderæ* and another unnamed in their native home. This note shows under what very different aspects two apparently similar plants exist and flourish in a wild state. Mr. Micholitz says: "*Cymbidium Sanderæ* always grows on trees, frequently together, with a large *Polypodium*, where its roots seem to revel in the Fern roots and decayed leaves deposited in these Fern stumps. A true epiphyte, growing in sparse numbers, making enormous quantities of roots in the spongy masses of the Fern clumps, which are full of deposited leaves and other debris, excrement of birds, and small animals. The red-flowered kind, however, which is provisionally called No. 1, grows under quite different conditions and surroundings. It may almost be termed terrestrial, for I found it on steep banks in ravines among thick grass and growing chiefly in a stiff, clayey-like soil, but never on trees. This fine *Cymbidium* has long spikes of open, rosy red flowers. Some very long spikes were on the plants, which must have been grand, but I was a little too late in reaching Lyang to see many plants in bloom. We were delayed many times on the road, and the flowering season was over on our reaching the mountains. I think you will find that these new *Cymbidiums* will do well, and flourish in or under similar conditions to *Cymbidium eburneum*, which must be grown warmer than *Cymbidium lowianum*. The latter is a cold plant, and probably will do well with as little heat as any known Orchid. It is certainly as cool a grower as *Cypripedium insigne*, if not colder. The latter will stand strong heat, but I do not think *Cymbidium lowianum* ever

needs a tropical heat. It is possible that the beautiful red one (No. 1) will do with a more decided rest than *C. Sanderæ*, because at times those ravines must be nearly as dry as the sun-scorched plains, where the sand was so hot that it blistered the feet, but at night heavy dews would envelop the plants in the ravines for several hours, otherwise they would perish. *C. Sanderæ* would not be nearly so severely punished by drought, because the roots nestle in the spongy Fern roots and *débris*, with more or less shade by day and heavy dews at night, hence it would receive some moisture all the year."

The *Cymbidium Sanderæ* exhibited at the Drill Hall, where it was awarded a first-class certificate, was one of a small consignment which had commenced to develop an inflorescence in the case during the journey home. Being well cared for, the single spike produced four blossoms, giving abundant evidence of its beauty and distinctness. It is well figured in the *Gardeners' Chronicle* of May 28, 1904, as a variety of *C. Parishii*, to which it bears some resemblance. Messrs. Sander's plant, however, is far finer than the rare and exceedingly beautiful *C. Parishii*, more brilliantly coloured, and altogether a more handsome plant. The petals of *C. Sanderæ* are different in shape and size to *C. Parishii*, and the labellum in *Sanderæ* is very much larger and finer. Messrs. Sander say: "We have only had one plant in flower yet, so we can only speak from what we have seen, but we believe that *Cymbidium Sanderæ* is quite distinct from all other *Cymbidiums*."

WORK FOR THE WEEK.

CYPRIPEDIUMS.

THESE should now be thoroughly overhauled, as insects may be lurking deep down in the young growths, and the injury is not noticed till the new leaves lengthen. If thrips are seen dip the entire batch in a mixture of quassia. We fumigate periodically, and by that means this pest is seldom troublesome, but if the small yellow thrips obtain a firm hold dipping in quassia water is needful in addition to fumigating.

Some plants will now require potting, such as *C. lawrenceanum*, *C. callosum*, and others that flower late in the season, and many hybrids that have been obtained by crossing those that flower early in the year with the autumn-flowering sorts. A good compost for *Cypripediums* is made up of two parts good peat and one part each of sphagnum and leaf-soil. Those hybrids in which *C. insigne*, *C. spicerianum*, *C. niveum*, and the like are one of the parents prefer less peat and the addition of a little good loam. In each case small crocks should be added when mixing to keep the whole in a porous condition. The drainage should be ample and made up of crocks and rhizomes. In determining the quantity of drainage, the quantity of live roots each individual plant has must be also considered. Plants that have few roots should be in pots quite half-full, and others could be treated in proportion, always bearing in mind that when growing freely water will be required in abundance. If it cannot get away quickly the soil soon becomes sour.

When repotting is done give the plant sufficient room for two seasons, and the back growths should be severed. New growth will then come from the back part as well as from the front. If there is no room for the new back growths to develop, both with the main plant and the back growth division is best.

It will also be found needful to tie away some of the old foliage to allow the new growths an uninterrupted course. This is often required, especially when the back growths have been severed and the new ones are starting. The newly-potted plants will only require one good watering. Then the compost will keep sufficiently humid for some time with the overhead sprayings, which must be well followed up so long as bright, hot weather lasts. Many *Cypripediums* will now be well rooted and making vigorous growth, among them the popular varieties of *C. insigne*, which are now very numerous. Give these water freely, and on bright days overhead syringings. Keep them

well shaded on bright days. The growths can be checked from becoming soft or drawn by allowing a free circulation of air among them, and so long as the nights remain warm keep the top ventilators well open. I consider the night air very beneficial to the cool-growing *Cypripediums*. A side of a house may be looking very well, but a thorough inspection from time to time is quite necessary, and that is only done by handling each plant.

Galton Park Gardens, Reigate. W. P. BOUND.

CORRESPONDENCE.

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

CARPENTERIA CALIFORNICA IN THE NORTH OF SCOTLAND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Referring to your note on *Carpenteria californica* (the 6th inst.), it is certainly hardy near the sea on the west coast of Scotland. I have only one bush, which has been planted long enough to prove its hardiness, viz., twelve years. It flowers regularly in July, and is now 7 feet high and 5 feet through. It is against the house, but not trained, and facing south, being sheltered from the westerly gales by a wing of the house, and from east winds (which are very trying here in the spring) by a *Choisya ternata* 12 feet high and 9 feet through. Of course, this west coast of Inverness-shire has a comparatively mild climate, and very many Mexican, Californian, Chili, and New Zealand shrubs flourish here, but certainly during two winters at least since planting the *Carpenteria* it has stood 30° of cold without being cut, and in 1894-5 there was severe frost for two months.

ROBERT BIRKBECK.

Kinloch Hourn, Inverness-shire.

LATE STRAWBERRIES—THE VARIETY ST. ANTOINE DE PADOUE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having read the paragraph in your paper recently by Mr. G. Wythes respecting late Strawberries, I thought it might interest the readers of THE GARDEN if I gave a short account of *St. Antoine de Padoue Hybrid* (*St. Joseph* × *Royal Sovereign*). I have forced it for the last two years with *Royal Sovereign*. To my thinking it is a very valuable Strawberry for that purpose. The fruit is of fair size and also good in colour and flavour. I started it with *Royal Sovereign* in the middle of January, and began to gather fruit the third week in March. *Royal Sovereign* is about a week later in ripening. The fruit is not equal to this in size, but one of the extraordinary things about it is that when gathering the first berries a second crop is coming on, quite as good as the first; in fact, it is a perpetual fruiter from the first gathering until removing the plants out of the house about the end of April. This year I have utilised the plants for out of doors after forcing. The plants were removed into a cold frame to harden off for a fortnight and then planted out in the open. The plants lost a portion of the old leaves, but at once began to grow away and became quite bushy in June. They at once began to show flower, the result of which was that on the 15th inst. I gathered one of the finest dishes of fruit that anyone could wish to see, so fine that my employer, Mr. Thomas Statter, sent for me in the evening after dinner to ask me what Strawberry it was I had sent in for dessert. He thought he had never eaten a Strawberry of so fine a quality, and Mrs. Statter expressed her regret that the dish of fruit had not been photographed. The most striking feature was the richness of the flavour and the size of the fruit.

I think if Mr. Wythes would try this sort and treat it as I have done this year, he would find a Strawberry equal to anything that could possibly be raised for August. This has certainly been a

favourable season for my experiment. I do not think that last year it would have been so successful.

R. JOHNSON.

Stand Hall Gardens, Whitefield, near Manchester.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—When Strawberries are in demand from August onwards this variety is a valuable addition to this section, namely, alpinas and their hybrids. It was raised from the alpine variety *St. Joseph* and *Royal Sovereign*, thus giving much larger and better flavoured fruits than *St. Joseph*, besides being quite as perpetual. In growth it is almost as strong as *Royal Sovereign* but sturdier; the fruit is of capital size and flavour, with trusses of bloom and bud throwing up for succession. This variety does well planted out, but from my experience here it may be grown in pots, placing them in frames or any other protection while fruiting. The flowers should be kept pinched off until the end of June or even later, and so a stronger plant is formed and the fruiting time is deferred. It should be grown as an early variety for spring. Layer the plants at different seasons for spring or autumn fruiting. Here the plants are layered from the old fruiting pots, when layers are weak or short on the border plants.

G. ELLWOOD.
The Gardens, Swanmore Park.

"NOVEL" POTATO CULTURE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was not a little surprised to see a notice headed "Novel Potato Production" in your issue of the 16th ult. It has evoked some comments in the gardening press, and an abridged notice appeared in some of the daily and weekly newspapers, several of which were sent to me. Not being the author of the notice I cannot, of course, be responsible for everything it contained.

I may say we do not make any claim to be the original discoverers of this mode of culture, for some evidence of the capability of the Potato in this direction must have occurred to many. I think, however, *Park Place* may be credited with its development and of reducing it to a system. I described about two years ago in detail our method of culture in the *Gardeners' Magazine*. It has now become part of our routine work at *Park Place*, *Henley-on-Thames*, and three or four dishes a week of new Potatoes of good size and quality are gathered (not dug) from September to Christmas, and two or three dishes per week from Christmas to March.

The culture is being still further developed by Mr. Powell, my successor in the gardens. I may safely say it has provided a most useful and much-appreciated addition to our winter vegetable supply. The chalk caverns at *Park Place* help us very much, and few places are better adapted for this system of Potato culture.

GEORGE STANTON.

CISTUS LADANIFERUS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice that "W." in an article on "The Rock Roses" (page 90), speaks of this species and its variety *maculatus* as if they were fairly easily procurable, and gives the size of the flowers as nearly 2 inches across. I believe the white-flowered type to be unprocurable, and the variety *maculatus* to be most difficult to obtain. As I mentioned in a note on the latter (page 20), I had then just measured a blossom that was slightly over 5 inches across. In Vol. LVIII. (page 251) Mr. Archer-Hind wrote: "It is nearly impossible to meet with the true *Cistus ladaniferus* (*maculatus*), *C. cyrius* I may say being almost universally sent out instead. Not to enter into minute distinctions, it is sufficient for identification to point out that not only has *C. ladaniferus* a very much larger and handsomer flower and much larger crimson splashes in the centre of the flower, but, whereas *C. cyrius* has three or four flowers on each peduncle, *C. ladaniferus* has only one. I am of course speaking of *C. ladaniferus maculatus*, the pure, unspotted white I have never been able to

procure." Messrs. Barr bear this out in their catalogue, in which they quote "Cistus cypricus, C. ladaniferus of gardens." Having vainly endeavoured to obtain a plant of the white type, which a few years ago I saw in hundreds at the side of the railway between Algeciras and Ronda in Spain, the bushes being then in full flower, I welcomed a note on page 280, Vol. LVIII., which stated that seed of this had been sent by the writer to Mr. T. Smith of Newry. I wrote to him to enquire if he had raised any plants, but was informed that the seed had failed to germinate. This year in the list of plants to be distributed by the Royal Horticultural Society the name of C. ladaniferus occurred, and I applied for and obtained a tiny plant, which I am growing on, but whether it will prove to be the true white type I have my doubts. S. W. FITZHERBERT.

ROSE WILLIAM ALLEN RICHARDSON.

THE accompanying illustration is from a photograph taken at Earldoms, Ridgeway, Enfield, the residence of Mr. Courtenay J. Page. As will be seen, the plant is in the rudest health. I was pleased to note the success which Mr. Page attained at the recent National Rose show, for he was second in the well-contested class of twelve blooms, there being no less than nineteen competitors. It is pleasant to find the decorative Roses grown by exhibitors, for they have a charm to the majority of individuals which the true exhibition Rose is bereft of. I think many exhibitors could blend the two together in a way that would remove the reproach now often hurled at exhibitors that they only care for Roses of an exhibition standard. Even with the beautiful garden Roses, such as Gustave Regis, &c., their beauty is much enhanced when some cultural skill is afforded in order to bring their blossom to the finest perfection. One would scarcely recognise some varieties when well grown to the same Rose indifferently produced. RAMBLER.

GARDENING OF THE WEEK.

INDOOR GARDEN.

THE PLANT STOVE.

PROVISION must be made to accommodate during the winter such plants as Euphorbias, Poinsettias, Gardenias, Begonias, Scutellarias, Thyracanthus, and others. A good deal of space for the purpose can be rendered available by removing from the roof the shoots of specimen Allamandas, Clerodendrons, Stephanotis, and similar plants that have flowered during the summer. After cutting away altogether a portion of the weak superfluous growth, attach the rest loosely to the trellis, and afterwards remove them and store them close together in the coolest end of the structure. Withhold gradually the supply of water to their roots, and the growth will in time harden and mature, a condition of much importance to success in flowering another year. It will be necessary also to free all plants from insect pests and to wash well the woodwork and glass, as well as lime-wash the walls. Bulbous plants, such as Caladiums, Gloxinias, and Achimenes, may be removed to a dry, cool position, in which their growth will gradually die away, and the supply of water to the roots should be greatly reduced.

THE GREENHOUSE,

in which a great number of Azaleas and other hard-wooded plants have to be wintered, must be got ready to receive these plants, as it will be advisable to house them as early as convenient in September. Zonal Pelargoniums and tuberous Begonias that have done flowering should be placed in any position where they can be given shelter from wet, but are fully exposed to the air. Have in readiness the shelves or stages on which Cyclamens, Primulas, Mignonette, &c., are to be placed near to the glass. Syringe less frequently around Ericas, Epacris, and other hard-wooded plants, but fresh air in abundance should be admitted.

THE PALM HOUSE.

The atmosphere here, which has until now been kept abundantly moist, should now be drier, and the Palms will harden the growth they have made during the summer and be better prepared for use indoors during the winter months. An occasional dose of weak liquid manure, to which a little soot has been added, will sustain those plants that have their roots situated in small pots in a healthy condition and impart a dark green colour to the foliage.

THE FERNERY.

Before removing the shade from the glass endeavour to harden somewhat the growth of the Ferns by reducing the supply of water to their roots as well as the moisture previously occasioned by syringing their surroundings.

Tramby Croft, Hull. J. P. LEADBETTER.

FLOWER GARDEN.

AUTUMN AND WINTER BULBS.

To ensure success with many of these beautiful flowers it is necessary to insist on early delivery of

beyond its quickness, which is often a doubtful advantage. I much prefer to use a small spade, and, after removing the turf where the bulbs are to be planted, make square holes and remove the old soil, replacing it with new. After planting, the turf may be broken up and replanted. The selection of bulbs will depend largely on the requirements of the place and the tastes of the owners. Whether for planting in the garden proper or in grassy slopes there are many beautiful families to choose from, such as Anemones, Chionodoxas, Colchicums, Crocuses, Eranthis hyemalis, Snowdrops, Leucojums, and Sternbergias. This last-named is deserving of more extended culture. Occasionally one hears that Sternbergias are impatient of removal, and do not flower for several years after planting. But if the planting is done at the proper season, and the bulbs are placed quite near the surface of the soil, there need be little fear of failure.

English and Spanish Irises are also suitable for planting in the natural leaf-soil on the verge of woods. Given shelter from rough winds and



ROSE WILLIAM ALLEN RICHARDSON AT ENFIELD.

any fresh bulbs that may be ordered. Some nurserymen require considerable stirring up, and prefer to delay the delivery, so as to be able to despatch the whole of the bulbs ordered at the same time. Of course, there is no need for any hurry with Tulips, Hyacinths, &c., but as the principle of "first come first served" is fairly observed in the greater number of seed establishments, the gardener, if he wants the first quality bulbs and roots, should order them as early as possible. As the bulbs to be planted during the present month will in all probability occupy the same spot for some time, it is wise to make preparations by digging the soil to a fair depth, and after adding some decayed manure, well working the top spit to ensure a fine tilth. Heavy soils will give much better results if a good proportion of leaf-soil and coarse sand is added.

For planting in grass land and on banks the use of the crowbar for making the holes is sometimes recommended, but unless the soil is unusually friable this method has little to recommend it

exposure to what sun there is, at their period of flowering these quickly increase in size.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

FRUIT GARDEN.

RASPBERRIES.

If the old fruiting canes have not been cut away this should now be done, to give the young ones more light and air to become properly matured. Tie in the strong young canes loosely to the wires or stakes to prevent their being damaged by strong winds, and remove or pull up weak shoots not required for planting that will not fruit next season. Autumn fruiting Raspberries should be protected with netting and trained thinly so as to give the fruits full exposure to the sun. Mulching and occasional waterings with weak liquid manure will be beneficial to them in dry weather and help to prolong the supply.

OUTDOOR VINES.

These are looking remarkably well this season. If the laterals have been allowed to extend a bit they must now be closely pinched and the growths trained thinly or good results cannot be expected. A mulch with good manure and copious waterings will be of great assistance to them, especially to those growing in light soils.

FIGS.

Figs growing on outside walls are making firm and short-jointed wood, a great difference in comparison to the growths made last season, which were gross and sappy. Do not allow the trees to become crowded with shoots or the wood cannot mature. Feed liberally trees that are carrying heavy crops of fruit, at the same time be careful of excessive moisture or the fruits will crack badly. Protect the fruits with hexagon netting from wasps and flies in general. This is the season of the year to visit some good nursery if it is intended to plant any quantity of fruit trees during the coming autumn and winter. New varieties may be seen and compared in fruit and growth with old and reliable ones. Notes should be taken now of trees that are crowded with branches and have them removed if possible, or marked to be removed later when the fruits are gathered. The crowding of branches is more noticeable at this season than at the winter pruning when the trees are clear of foliage. Good fruit cannot be expected in the centre of trees crowded with wood where sun and light are excluded, these only bear at the outside or end of the shoots. Go over Apple and Pear trees and pinch in all secondary growths.

Protect all the finest fruits from the birds with netting where possible. Round pieces of cardboard about the size of a five shilling piece with a hole in the centre just large enough for the stalk, and a slanting cut from the outside fixed upon Pears is an excellent protection from tits and other birds. Young trees of the above carrying heavy crops should be supported to prevent damage by high winds. Jars of beer and sugar hung on the walls and other places help to reduce the number of wasps and flies. Go over the trees of Plums daily and gather all ripe fruits, as they are quickly destroyed. Examine the ties of spring-grafted trees and remove them if cutting into the bark, and replace with fresh ones where necessary. Where budding of Pears, Apples, &c., is carried out, if not already done, this should be attended to at once, as, since the recent heavy rains, they are now in good condition for working.

Impney Gardens, Droitwich.

F. JORDAN.

KITCHEN GARDEN.

MUSHROOMS.

Now that the weather is cooler, beds in the open will soon cease to bear and cannot be depended on to produce sufficient quantities for a much longer period. About this date preparation should be made for a return to the Mushroom house proper. The collecting of manure should be done as speedily as possible and thrown into a heap, which must be turned over several times to allow some of the ammonia to escape. Mushroom manure should not be allowed to become dry and mouldy, but should be made up when in a fresh condition. After the temperature falls to 95° the bed should be spawned and covered over with rather heavy loamy soil and smoothed on the surface. The chief thing in the culture of Mushrooms is to see that the manure is gathered from stables where many drugs are not being used, and that the bed is made very firm before spawning. See that the structure is free from mice and other vermin. Keep a temperature of 60° and the house in a moist condition. The spawn should be procured in small lots, so as to ensure its being fresh and in the right condition. Mushrooms should appear in from six to seven weeks from the time of spawning the bed.

SEAKALE.

The foliage of this winter vegetable is now beginning to ripen. Remove decaying leaves, and pick off the seed-vessels unless seed is to be saved. Where later plantations are still growing they may

be given some stimulant to ensure good crowns for forcing for the winter months.

RHUBARB.

This is now in the best condition for preserving. The rank growth of this plant is over, and the stalks are now small and of a rich colour. Remove all decaying leaves and cut down flower-stems. Before the plants have lost all their leaves some of the best should be marked for lifting later for forcing.

ONIONS.

Spring-sown Onions are now showing signs of ripening. The heads may be laid over. Lift the crop where growth has been completed, choosing a dry day for the operation. These should be tied into bundles and hung in the sun to dry and ripen, or, if this is not convenient, they may be spread thinly on boards and thoroughly dried before storing. Autumn-planted Onions are still quite green and growing freely, and may be left for some time yet. When ripe they should be lifted without delay, and if the wet weather should continue they should be placed under cover in an open shed or cold frame to dry before storing. It is necessary to handle them carefully, as if much bruised they do not keep so well. Onions should be stored in a dry, airy room, should be inspected frequently, and all diseased roots removed.

Hopetoun House Gardens,
South Queensferry, N.B.

THOMAS HAY.

THE FRUIT GARDEN.

POINTS ABOUT THE PLUM CROP.

IN April, when Plum trees in gardens, orchards, and plantations were sheets of bloom, a general heavy crop was anticipated, and even at that stage some people began to talk pessimistically of the extremes of a famine one year and a glut the next. As matters have turned out, however, there is not an abundant supply of Plums as a whole, though they appear to be distributed somewhat unevenly. Everywhere the early promise was good, but the vigour of the blight plague seemed to be worse in some districts than in others, with the result that trees are heavily laden in some gardens and localities, while in others there is little fruit to speak of.

Though Plums are grown more or less in every private establishment in the country, it may be observed that from a commercial point of view Plum culture is largely confined to certain defined areas. East Kent, for instance, is a great Plum district, and in that splendid fruit-growing country, which stretches away from ancient Sandwich to quaint old Canterbury, a large quantity of fruit is produced. Here the Mogul, the common Plum of Kent, may be seen at home, and a very useful variety it is when all things are considered. The round purple fruits are well adapted for culinary and preserving, and the tree, which is a compact grower and heavy cropper, is so well adapted to the soil and locality that it needs little attention. In years gone by this was the standard variety of the district, but since the introduction of such excellent Plums as Rivers' Early Prolific, The Czar, and Monarch, the latter have superseded the local Plum to a certain extent. Still the native variety has its own place, and proves its usefulness in seasons of comparative scarcity, because if any Plum bears this one does, and when the markets are not over-burdened the fruit commands a good price. It is when Plums are very plentiful generally that the preponderance of the native variety is felt, and I have known seasons when tons of fruit have rotted on the ground because the crop did not pay to pick.

Passing from the south to the west everyone is acquainted, through experience or repute, with that famous fruit-growing district round Evesham in Worcestershire. Here Plums are a great feature of the fruit industry, and here again there is a native variety—the well-known Pershore—which is common to the district. The Pershore is a good, useful, and, taking one season with another, a profitable Plum; but in years of plenty the prolific

Pershore bears so heavily that the fruit cannot always be disposed of at a profit. A recent journey through this locality revealed the fact that the Plum crop is a good one, and bearing in mind the dearth of last year, satisfactory prices should be maintained. The trees are mostly half standards grown on the plantation system, with the ground beneath cropped with bush fruit and kept under cultivation. The shape and form of many of the trees are by no means perfect, but these shortcomings can be overlooked when every branch is roped with fruit. Besides those mentioned, there are other districts in the country which have peculiar natural adaptabilities for stone fruit, and these should be guides in the development of the industry. To plant fruit anywhere with the idea of growing rich from the proceeds is foolish; but the thing is to develop the industry to the highest excellence in those localities which Nature has adapted for the purpose.

Wherever Plums are grown for sale or home consumption the name of Early Prolific is a household word. Why is this? Admitting that the variety is a good cropper and free grower, it must also be remembered that the fruits are small, and it takes a good many to fill a basket, while the quality is no better than that of many other varieties, so the cause of the popularity of Early Prolific does not exist in the above recommendations. The secret rests in the fact that the Plum in question is early and is ready for the market before the majority of high-class varieties are ripe. Gluts of Plums do not affect the sale of very early sorts, because they can be disposed of before the rush comes on, and when they introduced the variety in question some years ago Messrs. Rivers and Sons doubtless earned the thanks of the Plum-growing fraternity in general. But we

WANT MORE GOOD EARLY PLUMS,

and this fact is proved by the demand there is for Early Prolific. In its season the latter holds the monopoly, but when it is over most of the first-class as well as the common mid-season varieties, come in together, and if crops are generally heavy we have the regrettable gluts of fruit which are bad for producers and of no great benefit to consumers. Suppose we had a Plum of the Victoria type which ripened its fruit in conjunction with the Early Prolific, what an acquisition it would be! I have pointed out that varieties of local origin and medium quality are valuable in seasons when fruit is scarce; but in years of plenty they are doubtless responsible for gluts and low prices, because, when high-class varieties bear heavily, the trees of local sorts are laden to breaking point, and the superabundance of the latter brings down the market value of the former.

Speaking of late culinary Plums, Monarch is, of course, the best variety introduced in recent years, but the demand for late Plums does not appear to be so great as for very early fruit. It may be well to extend the season of production somewhat by the cultivation of late varieties, but the Plums produced in August and early September largely supply the demand for preserving and other purposes, so that there is no great call for stone fruit afterwards, except in the way of Damsons. Taking these points into consideration it is doubtless amongst the very early section of varieties that there is room for fresh introductions, and a really good Plum which would be ready for picking early in August would be welcomed by private and market growers alike.

No mention of Plums at this season would be complete without reference to the aphid plague, which has been such a source of trouble throughout the summer. Trees on walls, in gardens, plantations, and orchards have suffered to a greater or lesser degree, and the condition of the growth is worse where no attention is paid to washing or summer pinching than in cases where these matters receive attention. Blight, in the language of the fruit grower, is a comprehensive term, applicable to each and every member of the aphid family, but its meaning seems to become more serious every year. It is useless to look upon blight as a calamity brought about by the easterly wind or some other cause, and to take no further notice of it.



THE BANANA IN AN ENGLISH HOTHOUSE.

This is how the Hop growers of old used to treat the attacks of aphid which now and then ruined the crop, but all is different now, and every Hop grower realises the absolute necessity of washing if he expects to see anything back for his outlay and labour. As yet things are not quite so bad as this amongst the crops of stone fruits, but the tendency is in the same direction, and every year gardeners and fruit growers become less independent of the appliance maker and insecticide merchant.

G. H. H.

THE BANANA.

BANANAS are largely consumed by the inhabitants of tropical countries, being excellent food. They are also now a popular article of food in temperate countries, large quantities of them being imported all the year round from the West Indies and the Canary Islands for consumption in the British Islands. They are cheap, conveniently portable, and so wholesome that they will soon rival, if they do not surpass, the Orange and even the Apple for general use among all classes.

The imported Banana, from the fact that it has to be cut before it is ripe, and for other reasons, is necessarily inferior in quality to fruit that has been allowed to mature on the plant. Consequently high-class Bananas can only be obtained in this country from home-grown plants. A good Banana is one of the most enjoyable of fruits. At Kew and in a few other large gardens in England where they can be conveniently cultivated they are grown to perfection. There are numerous varieties, varying in size from 9 inches in length by 3 inches in diameter to dainty little thin-skinned fruits no bigger than a man's thumb. They are either angular or smooth and regular, their colour is either yellow or russet red, and their flesh resembles that of a ripe apricot in colour and mellowness or

may be had from plants grown in large pots or tubs. The root-system of a Musa is large, and therefore a liberal allowance of root-space is necessary. They like a strong loamy soil and liberal supplies of manure. All the forms of *M. sapientum* require a tropical temperature; the Chinese Banana may be grown in an intermediate temperature, but it is at its best only in a house where the winter temperature does not fall below 60° and in summer not lower than 70°. If a border can be afforded for Musas it should be at least 3 feet deep, and contain 2 feet of rich soil on 1 foot of drainage. The soil should be renewed for every fresh plantation. Musas enjoy plenty of sunshine and a liberal supply of water at all times.

THE INDOOR GARDEN.

GLOXINIAS AND THEIR CULTURE.

WHILE the better sorts of Gloxinias were at one time propagated almost exclusively by the leaves, the principle of selection is now so generally carried out, and the seed saved only from the very best, that the better plan is to procure a packet of seed from some good collection and raise a batch of young plants in this way. The seed, which is very minute, should be sown during the month of February in a well-drained pot or pan, filled to within half an inch of the top with good open soil, such as a mixture of two parts well-decayed leaf-mould to one each of loam and silver sand. On this the seed may be sprinkled thinly, and if a pane of glass is laid over the top it will need no further covering. If the pan is then placed in a spot free from draughts and away from the hot-

water pipes, it will need little, if any, more water till the young plants make their appearance, when the glass must be at once removed. The seed will require to be kept where the thermometer does not get lower than from 60° to 65° at any time. After the young plants appear above ground they make rapid progress, and will soon require to be pricked off into other pans, using much the same soil as before. From the time germination takes place the seedlings must be kept near the glass and in as light a position as possible; otherwise should the young plants become drawn and weak during their earlier stages, it is quite useless to expect satisfactory results from them afterwards. In pricking off the young plants should be placed about 1 inch apart, and directly they show signs of crowding it will be necessary to pot them off into small pots. The same kind of soil as that previously used will do well for the first potting, which should be into pots about 2 inches in diameter. They can afterwards be shifted into 5-inch pots, which will be large enough for most of them the first season, and in which fine plants can be grown. Gloxinias do not require to be heavily shaded at any time; still, shading is very necessary during the summer. The soil for the final potting should be of a more lasting nature, say, equal parts of loam, leaf-mould, well-decayed manure, and sand, with a sprinkling of crushed bones. Then, as the pots get full of roots, an occasional dose of liquid manure or some artificial stimulant will be of service. By midsummer the plants will be strong and sturdy, and will do well in a structure rather closer and warmer than an ordinary greenhouse. A light dewing with the syringe during very hot weather is of service till the plants come into flower, and at all times their surroundings should be kept moist, otherwise thrips may be troublesome. When these pests put in an appearance fumigation must be resorted to. When the flowering season is over the plants will gradually go to rest, the first indication of this being the leaves turning yellow, and from this time the supply of water should be gradually diminished. When the foliage dies down altogether the soil should be allowed to get almost dry (not parched up), as if too wet the plants do not get the requisite amount of rest, and start prematurely into growth, while if the soil is kept in a baked-up state the tubers are sometimes attacked by a kind of dry rot, which will cause numbers of them to perish. The tubers should be wintered in a structure where the temperature ranges from a minimum of 50° to a maximum of 65°, while at the same time if too warm they become greatly weakened thereby. They may be wintered in the pots in which they have been grown or where it is necessary to economise space as far as possible, they may be turned out and laid in boxes of sand or very sandy soil of a light nature; fine sandy peat will do well. Although Coconut fibre is sometimes used, it absorbs too much moisture from the tuber, which, unless the fibre is frequently moistened, is liable to become shrivelled; while if the fibre is kept too moist it is apt to cause the bulbs to decay. After the tubers have passed the winter in a state of rest they will require repotting and starting into growth. To do this they must be shaken completely clear of the soil and potted into small pots, say, from 2½ inches to 4 inches in diameter, according to the size of the tuber. As the pots get full of roots the plants must be shifted into their flowering pots, the same plan being followed as that recommended for seedlings, except that most of them will now require pots 6 inches in diameter for their full development. Where a succession is required a very good plan is to start the tubers in two or three batches, with an interval of a fortnight or so between each, as the flowering season will then be spread over a longer period. Again, the seedlings will, as a rule, flower later than the old bulbs, so that the season will be still further extended. For autumn and early winter flowering the latest seedlings should be selected, and to ensure success they will then require a very light position in a structure that does not fall below 60°. The potting of Gloxinias in all stages should be done with a light rather

than a heavy hand, as if the soil is pressed down too firmly the plants do not make satisfactory progress. In wintering the tubers, should the soil become very dry, it is better to sprinkle the surface slightly than to allow it to become parched up. H.

TYDÆAS.

IN common with many gesneraceous plants, the name by which these are grown in gardens differs altogether from that recognised by the botanical authorities, for to them they are *Isolomas*, but in gardens and nurseries they remain as of old. By varying the method of cultivation they may be induced to flower at different periods of the year, but if simply potted in the spring and grown on in a warm greenhouse they are at their best during the latter part of the summer, and not only furnish a bright bit of colour after the *Gloxinias* are past, but in many instances attract particular attention by reason of the quaint marking of the flowers. They need an open soil containing a liberal amount of vegetable matter, such as equal parts of loam and leaf-mould, with a good dash of sand. The treatment usually given to *Gloxinias* will suit them well. As with these just named subjects, *Tydaes* can be readily raised from seed, but at the same time there are some well-marked varieties that are indispensable to any collection. A few of the best are herewith given: *Marius*, tube vermilion, edged deep purple, striped dark red; *Niger*, carmine, spotted maroon; *President Faure*, gold, spotted vermilion; *Princesse Clementine*, rosy yellow, spotted purple; *Robert le Diable*, carmine vermilion, spotted maroon; *Scorpion*, bright yellow, spotted brown; *Souvenir d'Alexandre Dumas*, pale rose, netted and spotted crimson; *Trophée*, rosy yellow and vermilion, marbled purple; *Belzebuth*, crimson, spotted black; and *Gigantea*, golden yellow, striped vermilion.

H. P.

THE KITCHEN GARDEN.

THE CUSTARD MARROW.

IT is the small Marrows, not much larger than a cricket ball, that are the most readily cooked and have the best flavour. Although large fruits and large varieties seem most desired, I would advise a trial of the Custard varieties in place of the big coarse ones so much grown. These grown in quantity and cut daily will give materials for the cook that are unobtainable in the market. Many object to cutting Marrows in a young state, thinking it wasteful, but this is not the case, as if the cutting is done regularly the plants yield enormously, more so than when a smaller number of fruits are left to form seed. The culture is very simple. The Custard varieties can be planted much closer together, and, though mostly bush forms, these require similar culture to the ordinary sorts. I do not think the plants like masses of manure. Ours do much better on the flat with a little food at the start, but what they do like is ample moisture at the roots, an open position, and waterings overhead late in the day. Grown thus dozens of fruit may be cut daily, and this may be done till the plants are cut down by frost. Red spider and green fly are their enemies, but this only attacks them when the plants are dry. We sow three seeds in $\frac{1}{2}$ -inch pots in April and plant out late in May, giving ample moisture at the start, and the hardier the seedlings are raised the better.

The Custard Marrow, though the growth is sturdy, does not grow so gross as others, but, at the same time, if supplies of liquid manure can be given in July or later so much the better. Our first fruits are cut in about six weeks from the time of planting, and in quantity from July till October. The plant is very productive, and there are some good sorts to select from.

I have referred to the bush forms, and of these there are distinct sorts, but they vary mostly in the shape of their fruits, and in writing of the bush I do not intend to class them with the Green Bush Marrow, which is not unlike the ordinary trailing

variety. Some Custard forms are nearly round, others long and ribbed, but the true varieties are small, shapely, and very prolific. Recently we have grown a trailing Custard variety called the Improved Custard, which is a great advance on the bush Custard; it produces a great quantity of fruit, but requires more room, and in this respect resembles more the larger trailing Marrow. The fruits of this variety when cut if about three days old—that is, from the time they begin to swell—are delicious. The older Custards do well if planted 3 feet or 4 feet apart and in an open, sunny position. Seed should not be saved from bearing plants. G. W. S.

NOTES FROM SCOTLAND.

THIS is the season for flower shows, and these appear to increase in Scotland annually, although each year some fall into pecuniary difficulties and suspend operations. It is surprising, indeed, that there is sufficient support for all the existing ones, and in many cases a combination of some neighbouring parish societies could be carried out with advantage to all concerned. Another point which might well be considered is the possibility of so arranging the dates that there could be no interference with each other's chances of gate money. I know two local shows held within two days of each other, and the places are only five miles apart. In consequence, both shows lose money, whereas if the meetings had been held a week or a fortnight apart both would have gained considerably. Up to the present the Scottish shows have this season had excellent exhibits, and in many things a great advance must be noted. Most of the smaller shows have sports or other attractions to help to attract the multitude. One of the most successful and most valuable of such shows is that held at

HADDO HOUSE,

the seat of the Earl of Aberdeen. It is well known that the Countess of Aberdeen is keenly interested in country industries in general, and in horticulture in particular, and every encouragement is given by Lord and Lady Aberdeen to the Haddo House Society. The annual show, which was held on the 10th inst., was most successful, the large number of classes being well filled, much excellent produce being exhibited. The horticultural department was a really fine one, the various exhibits being divided into two classes, one open to those occupying more than ten acres and the other to those occupying less than that area. Lady Aberdeen gives a number of special prizes, which are well competed for. The prize list is a long one, and one can only indicate a few of the winners of the special prizes. Lady Aberdeen's prize for window boxes was won by Mr. H. Smythe, Keithfield Lodge, and her ladyship's prize for a basket of fruit was secured by Mr. H. R. Connts, Ellon. Mr. L. Gavin, jun., Drumwhiddle, won Lady Aberdeen's prize for a collection of Grasses, that for the best collection of leaves of trees and shrubs being awarded to Miss Mary Gavin, who was also the winner of Lady Marjorie Sinclair's prize for the best drawing of a wild flower.

SOCIETIES' EXCURSIONS.

The annual excursion of the Scottish Horticultural Association to Dalkeith Palace on the 6th inst. was highly successful, although the heavy rain was disturbing. Under such conditions the outdoor departments could not be properly seen, but enough was witnessed to cause the members to appreciate the excellent work done by Mr. Whytock in his onerous charge. The glass houses were, as usual, full of lessons to gardeners, and general gratification was expressed by those privileged to be present at the quality of the plants and fruits in that department. Dalkeith Gardens can always be looked to as supplying good cultivation, and Mr. Whytock succeeds in maintaining the high reputation this great establishment has held for so long. Fully 100 members and their friends took part in the excursion, and Mr. J. W. M'Hattie, the president, entertained the company to tea.

On the same day a number of the members of the Dundee and Broughty Ferry Horticultural Associations had a joint excursion to Brechin Castle Gardens, where they were welcomed by Mr. M'Dowall, gardener to the Earl of Dalhousie. An interesting afternoon was spent in the gardens and grounds of Brechin Castle, and general appreciation was expressed at the results of the methods adopted by Mr. M'Dowall, who kindly gave much information regarding the practice followed. Before leaving, on the call of Mr. D. Storrie, the Earl of Dalhousie was thanked for so kindly giving permission to visit the gardens, and, on the call of Mr. Slater, Mr. M'Dowall was also thanked for his kindness.

RAILWAY STATION GARDENS.

Passengers by the short sea route to Ireland, *via* Stranraer and Larne, will have observed the attractive way in which several of the stations are decorated with flowers. This is greatly due to the action of the Portpatrick and Wigtownshire Railway joint committee in offering prizes for these. The prizes for the year have just been awarded, the Newton Stewart Station coming out first. Parton follows closely, and other stations for which prizes are given are: New Galloway, Creetown, Crossmichael, Millisle, and Palnure. The award of the first prize to Newton Stewart will be endorsed by those who have seen the tasteful way it is decorated and the good cultivation given to the plants.

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.

A BEAUTIFUL NEW IVY-LEAVED GERANIUM.

Princess of Wales is the name of a new Ivy-leaved Geranium which is being sent out by Mr. J. Fisher of Lewisham. It is a seedling from the beautiful variety *Mme. Crousse*, and has a flower of a peculiarly delicate mauve colour, and it is excellent for the open garden owing to its short-jointed growth. Its colouring should certainly make the flower popular.

TULBACHIA VIOLACEA.

This comes from Mr. Fitzherbert, who kindly sends many interesting flowers from Kingswear in South Devon. It is one of those pretty Cape plants which are only happy in warm climates, such as the south of England, Ireland, and favourable places further north. The heliotrope and pink flowers have a quiet charm, and the colour is clear and distinct.

ZEPHYRANTHES ANDERSONI.

This is one of the most interesting of the family, though without the beauty of *Z. carinata*. The flower is an orange-red shade on the outside of the segments, but within a clear rich yellow.

MICROMERIA GRECA.

This is of no account for its flowers, but the smell emitted from the leaves when bruised is almost as pungent as *sal volatile*, and sometimes strong enough to bring tears to the eyes. It might be called the vegetable smelling salts.

CASSIA MARILANDICA.

We are reminded of this bright yellow-flowered shrub by a shoot from Messrs. Thomas Ware,

Limited, Feltham, Middlesex, who also send *Sidalcea Rosy Gem*, a form with rose-purple flowers, and *Pentstemon spectabilis*, a strong coarse grower, with salmon-pink flowers of a pretty clear shade. Of the *Cassia* Messrs. Ware write: "The plants which are now flowering with us were raised from seed sown three years ago. It dies down with us in winter."

BULBS FROM LOWDHAM.

The bulb season is at hand, and by this we mean the time to plant, and the less delay there is for most things after September the better. Messrs. J. R. Pearson and Sons, Lowdham Nurseries, Notts, send bulbs of the Emperor Daffodil and of the double Tulip *La Candeur*. The bulbs are excellent, and we are glad to learn from this firm that all bulbs are "very good this season, far better than was the case last year."

HOYA BELLA SEEDLINGS.

I send what appears to be a curiosity in the *Hoya* family for your inspection—four separate seedlings from *bella*, all of which seem to lean towards *Paxtoni*. I sent pieces to the Royal Horticultural Society's scientific committee, and received an answer thanking me for the specimens, "but no one had any experience of the plants." We have had *H. bella* in the place for a generation, and have never heard of a seed pod. Was *Paxtoni* the last?—JOHN FISHER.

It has been conclusively proved that *Hoya Paxtoni* is but a form of *Hoya bella*; indeed, in the "Kew Hand List" *H. Paxtoni* is referred to as synonymous with *H. bella*, and is not even kept as a variety of it. Taking the two extreme forms they are certainly distinct, but we have often met with plants quite intermediate in character. Whether they were seedlings or not we cannot, however, say. Seminal variation prevails to a greater or lesser extent in most genera, but it is very probable that the plants will in time more nearly approach their seed parent. We believe that *H. Paxtoni* was introduced subsequently to *H. bella*.

ARRANGING FLOWERS AND FRUIT.

NOTHING is more frequent in our homes, and more especially in our gardens, than to see good things either misused or merely got together without any attempt to classify or to reconcile or to harmonise. It is the fashion now to collect; nine people out of ten among well-to-do folk who have the pleasant task before them of furnishing the home that they are to live in for many years—perhaps for life—will take pleasure in visiting old furniture shops and buying a quantity of articles that take their fancy. Just now there are keen collectors of old English furniture, of French of the time of Louis Quatorze, of eighteenth century English. All are about equally in fashion. The larger number of buyers have but little knowledge of styles; they buy all three kinds, and bring them home in triumph, and complete the appointments of their houses with a good sprinkling of Oriental things of two or three different nationalities and of several epochs.

So it is that a moderate London drawing-room will have, perhaps, a preponderance of inlaid furniture with brass mountings and spindly legs, supposed to be French, and in the same room there will be an old English Oak linen chest, with very coarse carving, that may have come out of a Sussex farmhouse, and an Oak dresser from a cottage kitchen, whose top shows that it was made for a room about 6 feet 9 inches high. And all this incoherent jumble of articles is brought together into one room, and there left to fight it out as best it may.

It is the rule rather than the exception that arrangements of flowers in rooms are made in good taste. It is generally understood that the old tightly-bunched mixed bouquets of fifty years ago are things of the past. In country houses the mistress or her daughters arrange the table flowers with simple good taste, using one kind of flower at a time, or some pretty mixture of not more than two or three kinds of blossom and foliage. They also choose their flowers so as to suit the colouring of the walls, and soon get to know the kinds and colours of the blooms that seem most happily to accord with the various places where it is desirable to have the bouquets. They find that the room insists on having certain things in certain places. One place may ask for white flowers with rather bright green foliage, and one finds that it is gratified by being given Solomon's Seal, or tall white Tulips, or great branches of white Lilac; and later, white Roses in large sprays of arching, or sheaves of upspringing, blossom. Another place may demand those of an orange colour, and receives the great orange Lilies or *Alströmarias*, or orange Day Lily or African Marigold. Another again wants crimson, and has Tulips—the tall May-flowering sorts—and, later, the old garden Pæonies, red, rose, and pink, and then Rhododendrons, and so on throughout the year.

It is safest certainly to begin with the simplest arrangements of some one thing, such as a jar of Daffodils, taking care to place them so that the flowers show themselves at their best and stand up as a handsome sheaf; enough but not crowded; with a few of their own leaves, and in such a jar as will hold them easily and comfortably, with plenty of water, and all their stalks reaching to the bottom. Flowers take kindly to careful arranging; they seem to understand what is required of them, so that however well and carefully they may have been placed in their jar, they will be found next day to have accommodated themselves so well to their position that they are even better than before.

Many of those who are accustomed to pick flowers for indoor use will have noticed a curious thing—how often it happens that the flowers seem to arrange themselves in the hand, and can scarcely be bettered afterwards. This is especially the case with bunches of Roses. It may be that unconsciously each Rose as it is cut and transferred to the left hand is put there with some idea of balance. Roses are heavy things; moreover, the prickliness of the stem makes their after arrangement a matter of some discomfort in the actual placing in the jar, the prickles catching in the stems of those already placed and tending to disarrange them.

Much more should be done in the way of well-disposed groups of fruit on our dinner-tables. In the late summer, when there are Melons, Grapes, Pears, Figs, Peaches, and Plums, it is desirable to arrange some of these on a large dish of silver, brass, pewter, or china. Fruit so arranged becomes a delightful picture, even more pleasant to look at in the middle of a dinner-table than a bowl of flowers. The amount of fruit that would fill four ordinary dessert dishes seems to increase in volume when so arranged; it gains greatly in beauty, and gives off a delightful scent. If anything brighter than ordinary Vine leaves are wanted to complete the dressing, those of Virginia Creeper are excellent. Vine leaves should be chosen rather small and pale in colour; as the season advances some may be found out of doors on some of the Sweetwater Grapes that are charmingly streaked and

mottled with golden yellow; and coloured Blackberry leaves—so Vine-like in form—may be found in hedge and thicket.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE meeting in the Royal Horticultural Hall on Tuesday last was not large—it is not the month for a big display—but many of the exhibits were of much interest. Professor Boulger gave an excellent lecture on "Preservation of Wild Flowers," and was listened to by a good audience considering the season; Mr. A. Dean in the chair.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. H. B. May, R. Dean, James Hudson, John Green, G. Reuthe, E. T. Cook, Charles E. Dixon, Charles Jeffries, Charles Blick, J. W. Barr, Charles E. Pearson, W. P. Thomsoe, E. H. Jenkins, C. E. Shea, George Gordon, R. W. Wallace, and Amos Perry.

Mr. M. Prichard, Christchurch, Hants, in a fresh and good group of hardy cut flowers had prominent batches of *Montbretias* and *Gladioli*, the latter mainly of the *Childsii* and *Lemoinei* sections. Some of these were extremely effective. *Columbia*, for example, scarlet and crimson flakes; Baron J. Hulot, purple; Eclipse, white and crimson-purple, quite a hooded flower; and Princess was in grand form. Other good things were *Campanula hybrida Isabel*, very fine violet-blue. *Scabiosa caucasica alba*, *Clethra alnifolia*, *Helianthus multiflorus Soleil d'Or*, &c. *Campanula hybrida White Star*, a white seedling from C. carpatica *Riverslea*, *Aenone japonica elegantissima*, and *Hemerocallis Dr. Regel* were among other good things in this group. Silver Flora medal.

Mr. H. B. May, Edinmont, had excellent Ferns, such as *Nephrolepis Pirsonii*, *Adiantum faheyense*, *Pteris Childsii*, &c., in company with *Bunvadias*, *Lobelia cardinalis fulgens*, and a pretty group of *Veronicas* of the shrubby *Andersonii* section.

Messrs. James Veitch had a small group of *Daedalanthus parvus*, with *Begonia Washington*, *Senecio Chivorum*, *Lilium Browni* (very fine) and its variety *L. B. Colchesteri*. *L. sutchenseis* a dwarf, narrow-leaved form after *L. tigrinum*. A tall plant of *Buddleia variabilis*, 10 feet to 12 feet high, is called *Wilsonii*; it is, perhaps, more deeply coloured than the variety *veitchiana*, and a good plant withal.

Mr. Amos Perry, Winchmore Hill, had a full table of hardy plants with *Water Lilies*, &c. *Phloxes*, *Aconites*, and *Rudbeckias* were prominent. *Cedronella cana* is an unusual exhibit with reddish tubular flowers. *Helenium fulva* was good and well marked. *Geum Heldeirichi superba*, *Helianthus mollis*, and *Liatris pycnostachya* were prominent things, and not less so *Tritoma grandiflora*, with a score or more of its showy spikes. (*Gnothera missouriensis*, *Asclepias tuberosa*, *Delphinium cashmerianum album*, *Phlox Coquelicot* in a fine mass, *Lilium Henryi*, and many beautiful forms of *Lychnis haageana* were other notable things. Silver Banksian medal.

Messrs. J. Peed and Sons, West Norwood, S.E., had a choice group of *Gloxinias* in flower, arranged with *Carex* and *Maidenhair Ferns*, and *Palms* as a background. The plants gave evidence of good cultivation, and were freely flowered. A great array of cut blooms, also of *Gloxinias*, were set upon boards, and formed quite a display of these valuable flowers. *Achimenes* in pots in several distinct kinds were shown. Silver Banksian medal.

Mr. Charles Turner, Slough, staged a small collection of *Hibiscus*, of which *Alba luteo plena*, *Blue Celeste*, *Monstrosa* (white and crimson), and *Leopoldi pleno* were the best. *Tamarix hispida æstivalis*, *Clerodendron Bungei*, and climbing *Rose Belle Vichysoire* (a bluish *Polyantha* kind) were also exhibited.

Messrs. T. S. Ware, Feltham, had a fine stand of *Cactus Dahlias*, very well arranged. Amos Perry, brilliant scarlet; Effective, yellow and fawn; *Loogalu*, orange scarlet; F. M. Stredwick, white; Mrs. H. L. Brousson, orange fawn; J. H. Jackson, maroon; *Lauretta*, red and pale orange, were all prominent and good. *Traits of Smilax*, *Asparagus*, *Ferns*, and *Eulalias* assisted in the decorations, the exhibit constituting a very pleasing feature. Silver Banksian medal.

Some *Lobelias* in pots were shown by Mr. G. Kent, Norbury Park Gardens, Dorking. *L. oculata*, dark blue, white eye, is a seedling from Newport's Model.

Border Carnations were shown by Messrs. W. A. Proctor and Son, Chesterfield, and two spikes of *Gladiolus* from W. A. Bull, Esq., Ramsgate.

Messrs. Barr and Sons, Covent Garden, in addition to several cabinets of Daffodil blooms modelled in wax, in which quite a representative gathering was arranged, had many good and showy hardy flowers in season, *Gladiolus* in beautiful array, *Crinum Powellii*, *Lilies* of the speciosum and tigrinum sections, *Senecio pulcher*, *Podophyllum Emodi*, *Sagittaria variabilis fl.-pl.*, *Cannas*, *Kniphofia Pfitzeri* (very fine), *Tropaeolum speciosum*, and others. *Water Lilies* were also in many good kinds. Silver Banksian medal.

Messrs. J. Laing and Sons, Forest Hill, staged a capital lot of *Begonias* in pots of an obviously good strain. The group included named sorts such as *Viscount Grimston*, *crimson*; *Sir C. Tennant*, salmon; *Lady White*; *Lady Ashburton*, golden yellow; *Grand Duchess of Hesse*, white, and others. Many of the unnamed kinds were also fine, and both single and double varieties were represented in plenty. Silver Banksian medal.

Messrs. Felton and Sons, 9, Hanover Square, W., had a large exhibit of *Chrysanthemum maximum* King Edward. The flower-head is very large.

Vases of Carnations and pots of early-flowering *Chrysanthemums*, as *Horace Martin*, yellow; *Ralph Curtis*, white; *Mme. M. Masse*, and *Bronze Masse* were also from the same firm. The plants were all well-grown and flowered.

A large table filled with *Begonia* blossoms on boards came from Mr. A. L. Gwillim, New Eltham, Kent. The varieties

were not named, and were represented in shades of rose and salmon, crimson and scarlet, orange, deep and light crimson, golden, white, and intense scarlet. Some of the single-flowered kinds were monsters, the white and salmon-scarlet shades especially so. It was indeed a great display. Silver-gilt Banksian medal.

A stand of Cactus Dahlias from Mr. S. Mortimer, Farnham, Surrey, contained some excellent novelties, e.g., Vivid, a most brilliant flower; Mrs. M. A. Mortimer, rosy mauve; Edith, crimson-maroon; Mrs. J. S. Brunton, rich yellow; &c. Blush Queen was excellent. (See awards).

AWARDS.

Dahlia Blush Queen (Cactus).—A remarkably pretty flower of a rose peach hue with creamy yellow centre. As shown it is one of the most effective we have met with, and if equally good in the garden will become a valuable sort. From Mr. S. Mortimer, Farnham, Surrey. Award of merit.

Tamarix hispida aestivalis.—One of those elegant and beautiful flowering shrubs that cannot be too well known. The leaves are of a somewhat glaucous hue, the numerous small blossoms of a rosy tint arranged on the freely branching spikes. From Mr. Charles Turner, Slough. Award of merit.

A botanical certificate was awarded to

Gladiolus primulinus.—From the Rain Forest, Victoria Falls of the Zambesi River, South Africa. The following interesting information was given: "These bulbs, which are believed to be closely allied to *Gladiolus primulinus*, grow in the spray of the falls. The petals act as an umbrella for protecting the pistil and stamens from the spray. They have been named Maid of the Mist.—Townsend." The growth is 3½ feet high, the inflorescence wiry and somewhat elegant, and bearing four to six of the light golden yellow flowers. The outer sepals are recurved, the inner uppermost one arched over and covering the organs of the flower. The lower petal is much shorter than the rest, and recurved in such a way as to meet the under side of the tube. It is in any case a most interesting plant. From Mr. Francis Fox, Alyn Bank, Wimbledun.

ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch (chairman), Messrs. J. O'Brien, H. A. Tracey, H. Little, F. Wellesley, G. F. Moore, W. Boxall, J. Douglas, M. Gleeson, W. Cobb, A. Hislop, J. G. Fowler, F. W. Bond, J. Charlesworth, De B. Crawshaw, and F. J. Thorue.

There was not much before this committee, and no awards were made for novelties, but among those submitted was *Cypripedium Bella* (vexillarium \times levigatum), a very pretty variety, which lost an award by one vote. From Mr. F. Wells, Westfield, Dorking.

From Captain G. L. Holford, Westonbirt, Tetbury, Gloucester, came *Cattleya germania superba* (C. granulosa Schofieldi \times hardyana), a fine variety with purple-mauve sepals and petals, and a large spreading lip of deep purple, prettily fringed; also *Cypripedium Milo* Westonbirt var. (insigne Chantini \times ceoanthum superbum), a beautifully marked variety.

From Mr. R. J. Measures, Cambridge Lodge, Camberwell, came *Masdevallia X Veitchi* fragrans, small flowers, amber with a purple gloss, an interesting variety.

From Mr. C. J. Ingram, Elstead House, Godalming, *Laelio-Cattleya Admiral Tozo* (schillerianum \times Turneri), soft mauve sepals and petals, with a purple veined lip. A distinct form.

From Mr. H. S. Goodson, Fairlawn, Putney (gardener, Mr. G. E. Day), a group of Orchids, which included *Cattleya Harrisonae* var. H. F. Goodson, a fine variety, the petals and sepals deep mauve, regularly spotted with crimson, and a well marked lip; *Laelio-Cattleya Harry Goodson* (parentage not known), dark bronzy brown sepals and petals, and a rich purple lip, evidently with *Laelia tenebrosa* blood in it; *Cypripedium ceoanthum superbum*, a fine dark variety; *Curtisi splendens*, and several other good kinds, also *Laelio-Cattleyas*, *Oncidiums*, and others. Silver Banksian medal.

FRUIT COMMITTEE.

Present: Mr. J. Cheal (in the chair), Messrs. W. Bates, S. Mortimer, A. Dean, L. Castle, G. Lyne, W. Poupard, J. Jaques, G. Norman, and F. Q. Lane.

Apples were the chief feature before this committee. Messrs. G. Bunyard and Co. of Maidstone staged fifty varieties, all of excellent quality and well matured, only early autumn varieties being included. Among the most noteworthy were Bielo Borodawka, a medium-sized kitchen Apple of good appearance (was submitted for a certificate but failed to get it); Peter the Great, Early Victoria, Withington Fillbasket, White Transparent (very fine), Golden Spire, Red Hawthornden, James Welsh, and Lord Grosvenor. Of dessert varieties Beauty of Bath was fine, also Ben's Red, Irish Peach, James Grieve, St. Edmund's Pippin (an early russet), and Worcestershire Pearmain (a very fine exhibit indeed). Silver Knightian medal.

Messrs. Cannell and Sons made a bright exhibit, having about fifteen sorts in pots, the plants all being well cropped with fruit, and included such sorts as Lady Sudeley, Allington Pippin, Bauman's Red Reinette, King of the Pippins, Cellini, Early Victoria, Winter Peach, Stirling Castle, Pott's Seedling, and other good sorts. Among those shown in dishes were Beauty of Bath (in splendid condition), Red Astrachan, Mr. Gladstone, Red Quarrenden, Lady Sudeley, Duchess of Oldenburgh, The Queen, Grand Sultan, Sugar Loaf Pippin, Golden Sphere, and others, a well displayed and attractive exhibit. Silver Knightian medal.

Mr. H. Spooner of Isleworth also made an excellent display of Apples, though the fruits were not quite so well matured as in the other collections, and included several not seen in the other exhibits, Okera, Bononi, Goodenough's Nonsuch, Early Julien, Williams' Favourite, Ecklinville Seedling, Kerry Pippin, Grenadier, and other good sorts. Silver Banksian medal.

Mr. W. A. Cook, gardener to Colonel Simpson, Shirley House, Croydon, showed some fine bunches of Grape Buckland Sweetwater from Vines planted in 1867, also a good Tomato named Shirley Favourite. The fruits were of perfect

shape and very firm, but of a pale red or pink colour, and some good fruit of Peach Sea Esque.

Mr. J. Crook, The Gardens, Forde Abbey, Chard, showed fine examples of Apricot Moore Park, and was awarded a cultural commendation.

Mr. W. Roupell, Roupell Park, had well-ripened fruit of Apple Lady Sadeley grown within five miles of Charing Cross, and was given a cultural commendation.

Mr. J. B. Colwill, High Street, Sidmouth, showed Raspberry Diamond, a very fine variety, some of the largest we have seen this season.

Mr. G. Penwill of Totnes, Devon, showed his Raspberry Penwill's Champion, which gained an award at the Holland House show.

Mr. G. Kent, Norbury Park Gardens, Dorking, showed Melons Kent's Al and Norbury Hero, both scarlet flesh, well netted, and of good flavour; and from

Mr. Whinstanley, gardener to Sir Pryse-Pryse, Bart., came Melon The Baronet, a pale flesh, but very good flavour.

From Mr. W. Deal, Brooklands, Kelvedon, Scarlet Ronner Bean Brooklands Scarlet was shown in bunches, representing a very fine crop; also Potato Excelsior, a fine early round variety.

Some fine examples of the Mirabelle or Cherry-Plums came from the Royal Horticultural Society's gardens at Wisley.

Rubus sorbifolius (the Strawberry-Raspberry), from Mr. Charles Turner of Slough, were attractive to look at, but, we believe, deceptive, as the flavour is poor. It is, however, sufficiently attractive as a climber.

EASTBOURNE FLOWER SHOW.

The flower show held in the beautiful grounds at Compton Place on the 17th inst. was a great success. The gardens were open to visitors, and perhaps proved a greater attraction than the flower show itself, though this was exceptionally good. Mr. May, gardener to the Duke of Devonshire, made a splendid display, putting up a large miscellaneous group of plants that included some fine specimens of *Campaula pyramidalis* (white and blue).

Among the competitive exhibits were some very good groups. Mr. G. T. Scott of Eastbourne taking first prize. Mr. W. E. Hollands of Tunbridge Wells also made a very fine display. Mr. Dorrant Young of Eastbourne put up a good group in the background; a bright display was made with *Tuberous Begonias*, *Tuberoses*, and *Liliums*. For Ferns Mr. Scott was again first with a well-arranged group. There were some very fine specimen Ferns from J. Warreo, Esq., Hand Cross Park, Sussex, *Davallia polyantha*, *D. mooreana*, and *Marattia alata* being specially good. Other foliage plants and large specimen flowering plants were equally good from the same exhibitor. Mr. Alired Gadd, gardener to P. A. Eagles, Esq., St. Leonards, also exhibited well in the above classes. *Tuberous Begonias* in double varieties were very good from Mr. F. W. Thomas, Wannock, Polegate. *Zonal Pelargoniums* were well shown, also *Gloxinias*. Hardy flowers were quite a feature. Messrs. G. Bunyard and Co. of Maidstone staged a large group, in which the *Tritomas* were very fine.

Messrs. A. Charlton and Son of Tunbridge Wells also had hardy flowers and a good collection of Cactus Dahlias. Cactus Dahlias were very fine from Messrs. Stredwick and Son of St. Leonards, also from Mr. F. W. Seal of Sevenoaks, and Messrs. J. Cheal and Sons, Crawley. The last two named also had Pumpkins and singles in good form. Good Roses came from Mr. Will Taylor of Hampton and Mr. W. J. Woolbard of Uckfield.

There was a good display of fruit. In a collection from Mr. J. Gore of Polegate, Sussex, Madderfield Court Grapes were very fine. Among Melons, from over a dozen exhibitors, the first prize was gained with Frogmore Scarlet, which is a fine variety. In *Nectarines* Pine-apple took first, and in Peaches *Dymond*. Apples were well shown in dessert varieties, Irish Peach, Lady Sudeley, and Red Astrachan were the sorts taking first prize for three dishes.

Potatoes were largely shown, the best round being White Globe, and the best Kidney Up to Date.

Table decorations were another good feature, some very pretty arrangements being displayed.

FELLING FLOWER SHOW.

On the 15th and 16th inst. the twenty-fifth annual exhibition of the Felling Floral and Horticultural Society was held at Felling. The entries were as numerous as in previous years, and the exhibits of the highest quality. The list of special prizes in the open class were as follows: Tradesmen's Silver Challenge Cup, Higginbottom Challenge Bowl, and Members' Silver Challenge Bowl. The exhibits of Messrs. Harkness and Sons of Bedale in the open class were remarkable, they having won the Higginbottom Challenge Bowl for twenty-four cut Roses, defeating Mr. R. Gardner of Whickham the holder. Equally magnificent were the table decorations exhibited by Mr. James Summers of Sunderland, for which he was again awarded the Members' Silver Challenge Bowl for the third successive year. Mr. Thomas Battensley of Blaydon was awarded the Tradesmen's Silver Challenge Bowl for eighteen Dahlias, twelve dissimilar, he defeating Messrs. Harkness and Sons of Bedale, the holders. Other principal prize-takers were Mr. F. Edmundson, ourserman and florist, Newcastle; Mr. John Arkless, Gateshead; Mr. J. Ellison, Shankhouse; Mr. R. Gardner, Whickham; Mr. A. Winter, Corbridge, &c.

KIRKCUDBRIGHT.

THE annual show, which was held in the Town Hall, Kirkcudbright, on the 13th inst., was one of the best yet held by the society, and had the weather been more favourable the results would have been highly satisfactory. The Grapes in the open section were of exceptional excellence, the first prize going to Mr. James Duff, gardener to Colonel Gordon of Threave, the second to Mr. W. Thompson, Cally Gardens, who, however, led in all the classes for Grapes confined to gardeners. In the pot plant classes the competition was

good, and three fine tables were arranged in the class for a table of plants 4 feet in diameter, the first prize deservedly going to Mr. W. M'Guffog, gardener to the Countess of Selkirk, Balmoe, Duff being second, and Mr. Thompson third. Cut flowers were good, the leading prize winners being Mr. Duff, Mr. G. Benson (Borvue), Mr. M'Guffog, and Mr. Walker, gardener to Misses Blackburn, Park House. The fruit classes were unusually good, Mr. Duff, Mr. Thompson, and Mr. B. Rutherford, gardener at Glenlair, being the leading winners. Vegetables were fine, the autumn sown Onions from Mr. M'Guffog being universally commented upon for their excellence.

TAUNTON DEANE HORTICULTURAL SHOW.

THERE is vitality in a society that for the space of thirty-seven years has held a large flower show annually. The show was held in Vivary Park, a municipal open space at the top of the town, on the 11th inst., and here some nine tents were placed. The Taunton show brings together one of the finest displays of specimen plants seen in the country. The committee had to regret the temporary loss of the fine plants hitherto shown from the gardens of Willrid Marshall, Esq., the late president, who died a short time since. Not only were the specimen plants numerous and good, but cut flowers, fruit, and vegetables, together with elaborate table decorations, were up to the usual high standard.

SPECIMEN PLANTS.

With twelve plants in flower Messrs. Cypher and Son were placed first with some of the best specimens staged by them at Taunton during the past twenty-five years; Mr. Vause was second; W. Brock, Esq., Exeter (gardener, Mr. Rowland), third. With six specimens Messrs. Cypher were first and Mr. Vause second. Some excellent specimen *Begonias* were shown by Miss Neale, Taunton (gardener, Mr. W. Hayward). There were *Fuchsias* also, very fine *Cockscombs*, and several classes for single specimen stove and greenhouse plants. The best plant in bloom recently introduced was a pale-coloured *Ixora*; the best foliage plant *Croton turfordensis*, both from Messrs. Cypher and Son. The best group of plants arranged for effect was from Mr. Vause.

In the amateurs' division the principal exhibitors of plants were Mr. W. Brock and Colonel Sandford, Nynehead Court (gardener, Mr. S. Kidley). Mr. Brock had the best group, and Colonel Sandford was second. In the open division foliage plants were finely shown in eights, also Ferns, by Messrs. Cypher, Vause, and W. Brock. In the amateurs' division Ferns, *Coleus*, and *Caladiums* were produced, all highly creditable.

CUT FLOWERS.

These included Roses. Mr. G. Prince, Longworth, took the first prize for thirty-six and eighteen blooms, and also for eighteen Teas, Messrs. J. Jefferies and Son, Cirencester, taking the second prize. Mr. W. Treseder had the best twelve blooms of show Dahlias, staging good blooms, but Messrs. J. Cray and Son, who were second in the previous class, came in first with twelve good fancy Dahlias. They were also first with six bunches of single varieties and with nine bunches of Pompons, Mr. W. Treseder coming first with six bunches of charming Cactus Dahlias. *Zonal Pelargoniums*, *Phloxes*, types of *Astera*, *Gladioli*, *Phlox Drummondii*, *Hollyhocks*, *Begonias*, and *Ceratinns* were well shown, the latter especially, Messrs. Herbert and Brown of Birmingham staging finely finished flowers, which formed excellent object-lessons. Stove and greenhouse cut flowers and hardy herbaceous and bulbous plants were in good character, and Sweet Peas were shown in two classes, some special prizes offered by Mr. R. Sydenham bringing a large competition. In the amateurs' and gardeners' division cut flowers were shown in twenty classes, and of general good character.

FRUIT.

In a schedule of prizes of 176 classes it is obvious that only certain leading features can be touched upon; and of the fruit it may be said there was a very good display indeed. The best eight dishes were from J. W. Fleming, Esq. (gardener, Mr. Mitchell), who had excellent Grapes, Peaches, Nectarines, Apricots, Figs, &c.; Lady Ashburton (gardener, Mr. J. Hall) was second. With four dishes Lady Ashburton was a good first, and Colonel Sandford second. Mr. Fleming was first with two bunches of Black Hamburg Grapes; Mrs. Brooks, Yeovil, was second. With two bunches of any other black Mr. H. H. Shepherd, Ilminster, was first with Madderfield Court, Mr. Fleming coming second with Gros Maroc. The latter had the best two bunches of White Muscats; Mr. J. S. Donne, Castle Carey, was second. Mr. R. G. Somerville was first with two bunches of any other white, showing finely-developed Buckland Sweetwater.

In the open class vegetables were very fine, and the special prizes offered by Messrs. Sutton and Sons, Carter and Co., E. J. Butt and Co., and Jarman and Co. brought good competitions. The cottagers' productions, which were included in twenty-one classes, made a show in themselves, as they filled a large tent.

Very interesting exhibits were made by Messrs. Kelway and Son, who were awarded six certificates of merit to very fine new varieties: Messrs. J. Hoose and Son, Westbury-on-Trym, who had *Phloxes* in great variety and *Delphiniums*; Messrs. R. Veitch and Son, Exeter, who had a large and varied collection of plants, prominent among which was the large yellow *Lonicera Hildebrandtii*; Mr. Prichard, Christchurch, who had cut flowers and plants; Child and Herbert, Acock's Green, who had *Carnations* and *Ficoteas* in variety; Blackmore and Langdon, Twerton, who had fine *Begonias*; W. Treseder, Cardiff, who had Cactus Dahlias; P. Slade, Taunton, showing Roses in pots, *Zonal Pelargoniums*, &c.; W. B. Smale, Torquay, who had Cactus Dahlias, *Begonias*, *Phloxes*, &c.; Tuplin and Son, who had Cactus Dahlias, *Carnations*, &c.; J. H. White, Wraester, who had a collection of hardy flowers; W. L. Pattinson, who had *Violas*; while Mr. G. Prince staged a charming collection of Roses.

As is usual, there was a large attendance, the taking being equal to those of previous years.

THE GARDEN

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ROSES — PAST, PRESENT, AND FUTURE.

BY THE LATE DEAN HOLE.

"I came to the place of my youth, and I said,
"The friends of my youth, where are they?"
And echo answered, "Where are they?"

I HAVE come back for a while to the place in which I have lived my life, all but a decade in the Deanery at Rochester, and I go into my garden, where, once upon a time, 5,000 Rose plants grew, and I say to the 500 which represent them now, "The Roses of my youth, where are they?" Alas! as when in a Sunday School no responsive hand is held up to indicate information, so now there is no sign, no sound.

Where are the Roses of my childhood? Even the wild Roses which beautified the hedges of our high roads, and embowered our rural lanes, have in many districts almost disappeared, hacked to death by the billhook, or grubbed up altogether to make way for iron rails, or for that abomination of desolation, the prick-wire fence. In the garden, where are the great bushes of the Moss Rose, exquisite in the bud, but somewhat prickly and sticky to our tiny and grimy fingers? Where are the flowers which proclaimed that the Wars of the Roses were over, and that the colours of York and Lancaster were blended in peace? Where is Rose Celeste, sweet and blushing as miss in her teens, which we children loved most of all? Where are the Burnet, the Portland, the Pimpernel, the Pompon Roses? Where is the Damask, Rose du Roi, in crimson velvet robes? Where are the Provence Roses—the Cabbage, sweetest of all? Where are all the admirable Roses painted in Redouté's charming book? Where are the Roses of which Mrs. Gore wrote some sixty years ago? She gives us the names of nearly 400 "species allowed by botanists," and of more than 1,500 varieties; where are they—the Emperors and Empresses, the Kings and Queens, the Princesses, the Archbishops and Archdukes? Where is the Rose de quatre saisons, better known to the working gardener, who, like Mr. Lillyvick, has no opinion of the French language, as "Quarter Sessions?" The Assemblage des Beautés is dispersed; the Bella Donnas have retired from the stage. Gloria Mundi and Merveille de l'Univers are faded and gone!

"I feel like one who treads alone some banquet hall deserted,
Whose guests are fled, whose Roses dead, and all but he departed."

Here and there in ancient gardens, in shrubbery borders, and in neglected nooks a few of the old Roses may still be found, and specimens are sent to me from time to time with a request that I will "name this child." Some of the latter I am able to identify from personal acquaintance or from their portraits in my possession; but they arrive, as a rule, in an advanced stage of decomposition, and I can only designate them as pot-pourri. One of

my correspondents accepted this reply as the correct appellation for the Rose, and I had intense gratification, on a subsequent visit to his garden, in reading that he had named his *bella incognita* in large black letters on a white ground, "Rose, Pot-pourri!"

The more numerous survivors of those which bloomed when

"In the days of my childhood 'twas like a sweet dream
To sit in the Roses and hear the birds sing."

are the Ayrshire, the Banksian, the Scotch, the Austrian Briar, and, true to its title, the Semper Virens. Among the latter, conspicuously, Felicité-Perpetuelle (who will tell us when and why it was abbreviated to Perpetue!) reminds us of the delights, pure and infinite, which gladden the rosarian's heart.

Passing on to manhood, through the years in which the cricket-bat and the football, the new gun, the pony, the cob, the hunter, enticed us in our hours of recreation from the garden to the wicket and the goal, to the woods and to the stubbles (there were stubbles in those days nearly up to the knee, and there were men who preferred to find and follow their game rather than have it driven to them), to the time when more than fifty years ago, that love of flowers innate in us all came back to be with me always, again, I ask—the Roses, which changed my apathy into enthusiasm and made the desert smile, where are they? The Gallicas, robust in growth, resplendent in colour, but more remarkable for size than symmetry: Boule de Nanteuil, D'Aguesseau, Kean, Ohl, Shakespeare, where are they? *Rien ne me surpasse* has been jeered to death.

Where are the Hybrid Chinas, the Hybrid Bourbons, which once absorbed our admirations (the defect is never in the flower, but in our impotent appreciations)! where are Brennus and Chenédolé, Charles Lawson, Coupe d'Hébé, Paul Perras, and Paul Ricaut? Blairii No. 2 (Blair, a gardener, raised two seedling Roses, of which No. 1 was worthless) still remains one of the most fascinating flowers in our gardens, on wall or trellis, although I have heard the exhibitor denounce it as "not having staying powers," but nearly

"All its lovely companions
Are faded and gone."

The Hybrid Perpetuals—was it imaginable that Abel Grand and Alphonse Damaizin, the Baronesses Prevost and Rothschild, Caroline de Sansales, Comtesse de Chabillant, Jacques Lafitte, Jules Margottin, Mesdames Lacharme, Laffay, Rivers, and Vidot, Paul Verdier, and William Jesse could ever be superseded? Was not the Duchess of Sutherland as pre-eminent for her beauty among the Roses then as the living Duchess amongst the ladies now? We gave 10s. 6d. for Géant des Batailles, and we saw him mortally wounded by Général Jacqueminot, and the aphides came down like birds of prey upon the slain, and the mildew made him a shroud.

Général Jacqueminot we regarded as invincible until Charles Lefebvre, achieving a more glorious reputation, became our commander-in-chief; and so by a gradual development of beauty we have been constrained to admit, ever cherishing with tender affection our memories of the past, the superiority of the Roses which are with us now.

"Never, sure, since high in Paradise
By the four rivers the first Roses blew,"

have they been so numerous or so exquisite—never such a diversity and perfection of colour and of form. Who could weep for the Bourbon Queen in the magnificent presence of Her Majesty? But what a consternation of woe would come if half a million of our English homes were denuded of Gloire de Dijon! What a paralysis and softening of the brain, what sighing and sobbing would ensue if the fond rosarian were separated for ever from his Anna Olivier, his Augustine Guinoisseau, his Beauty of Waltham, his Caroline Testout, his Catherine Mermet, his Eugénie Verdier, his Margaret Dickson, his Marie Baumann, his Marie van Houtte, his Therese Levet, his Suzanne Marie Rodocanachi! Imagine his desolation and despair, bereaved of his Enchantress, his Sylph, his Little Pet, and his Bride.

The bountiful and beautiful addition of new Roses which has come to us, and the cry is "Still they come," in these latter days, has been most welcome to the fastidious exhibitor who desires to have both size and symmetry, with every petal in its place. There was a time when the nurseryman who desired to show seventy-two and the amateur forty-eight varieties were perturbed in spirit, when, like sad young Lovel, they sought wildly, but could not find the object of their affections, when they were constrained to include Roses which had outlived, had not yet attained, or never would attain, perfection, and were sorely tempted to insert a duplicate, which by any other name would smell as sweet. It has been my painful duty more than once, when acting in a judicial capacity, to disqualify a collection on account of this vain repetition; and I recall an occasion, when in a box containing "twenty-four distinct varieties" I counted five Charles Lefebvres. It is a Rose which *decies repetita placebit*, but not under false pretences, and there is now an ample abundance for the selection of those who grow Roses largely, an *embarras de richesses* rather than a dearth. I have seen an exhibitor, when cutting for a show, with two specimens of La France in either hand, and one between his teeth.

And it may be noted here, that this accumulation of material has been accompanied by a more artistic arrangement, so that we no longer see a Rose of moderate dimensions dwarfed by its gigantic neighbour, or the results of that colour blindness which has no perception of contrasts or combinations.

(To be continued.)

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 6.—Royal Horticultural Society's Committee.

September 7.—Hull Horticultural Association (two days).

September 14.—Royal Caledonian Horticultural Society's Show, Edinburgh (two days).

September 20.—Royal Horticultural Society's Committee; National Rose Society's Autumn Show.

October 5.—National Chrysanthemum Society's Show at Crystal Palace (two days).

October 12.—Royal Botanic Society.

October 25.—Croydon Chrysanthemum Society's Show (two days).

November 1.—Bournemouth Chrysanthemum Show (two days); Brighton Chrysanthemum Show (two days).

November 2.—National Chrysanthemum Society's Show at Crystal Palace (three days); Southampton Royal Horticultural Society's Show (two days); Highgate Chrysanthemum Show (three days); Lowestoft Chrysanthemum Show (two days); Portsmouth Chrysanthemum Show (three days).

Royal Horticultural Society.—The next fruit and flower show of the society will be held on Tuesday next, in the society's hall, Vincent Square, Westminster, 1 to 5 p.m. On this occasion the National Dahlia Society's Committee will meet for the purpose of awarding certificates to new seedling Dahlias, entries of which must be made to the Hon. Secretary, National Dahlia Society, Royal Horticultural Hall, Vincent Square, S.W. A lecture on "Gourds" (illustrated by lantern slides) will be given by Mr. J. W. Odell, at three o'clock, and exhibits from growers will be welcome. At a general meeting on Tuesday, the 9th ult., twenty-six new Fellows were elected, amongst them being Lady Mackenzie of Coull, the Hon. Mrs. Verner, and the Hon. Mrs. Wynne, making a total of 1,159 since the beginning of the year. The Royal Horticultural Society will hold (in conjunction with the National Rose Society) an exhibition of autumn Roses on Tuesday, the 20th inst., in the Royal Horticultural Hall, Vincent Square, S.W. Intending exhibitors can obtain a copy of the prize schedule on application to the Secretary, Royal Horticultural Society's Office, Vincent Square, Westminster, and are requested to note that entries for prizes cannot be accepted after Thursday, the 15th inst. Prizes are confined to Fellows of the Royal Horticultural Society and members of the National Rose Society. The council has been approached and requested to erect lockers in the basement of the hall in order that exhibitors may rent the same for leaving in them various articles required from time to time for their exhibits, and so avoiding the trouble of carrying them backwards and forwards. The council is quite willing to do this if a sufficient number of exhibitors will signify their wish for such a convenience, and also give some idea of the size of the locker they would require.—W. WILKS, Secretary.

Horticulture as a recreation.—Horticulture is not only the happiest of all our recreations, "the greatest refreshment to the spirit of man," it is not only the most accessible in some phase or other of all our enjoyments, for it is given to all classes, rich and poor, to the window plantsman as well as to the owner of a crystal palace; but it is, of all our delights, that which retains the longest its manifold power to please. Age cannot wither it, nor custom stale its infinite variety. When there is no longer the physical activity for sports and games, not even for that beneficial lawn tennis, which rouses the energies and checks the rotundities of our middle age, when the voice of the singer, and the touch of the musician, and the keen sight of the painter fail; then the love of a garden lives on in the human heart, and some of its essier employments may be done by the feeble hand.—The late DEAN OF ROCHESTER.

The fruit industry of Great Britain.—The Departmental Committee appointed by Lord Onslow to enquire into and report upon the fruit industry of Great Britain made a

tour through some of the principal fruit districts of England from the 22nd to the 26th ult. On the 22nd ult. a visit was paid to the National Fruit and Cider Institute, situated at Long Ashton, Somerset. On the 23rd the committee visited the fruit plantations on the Toddington Estate in Gloucestershire, and on the 24th those of the Evesham district. On the 25th a visit was paid to the Duke of Bedford's experimental fruit farm, situated at Ridgmont, Bedfordshire, and on the 26th to the Sussex County Council fruit station, situated at Uckfield. The committee visited the Swanley district of Kent earlier in the year. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Lieut.-Colonel C. W. Long, M.P., Mr. C. W. Radcliffe-Cooke, Dr. W. Somerville, Mr. P. Spencer-Pickering, M.A., F.R.S., Mr. E. Vinson, and Mr. Ernest Garnsey (secretary).

Eremurus Bungei at Colchester. The clump of *Eremurus Bungei* here shown was



EREMURUS BUNGEI AT COLCHESTER.

so pretty in full flower that I had it photographed, and I think it shows exceptionally well how vigorous and free *E. Bungei* is when grown in a warm position. The original root, planted three years ago, was a single crowned one. The first season's growth, as usual after removal, was nothing remarkable; the second season's gave three fine spikes; this season there were seven, all fully grown, and very lovely they were. There is, to my mind, a greater refinement in the flowers of *E. Bungei* than in any other, and it is seen in the slender stems as well as in the more closely set spikes of deep lemon flowers rising from a tuft of narrow leaves. It is also very lasting in flower, and a spike will remain a fortnight in good condition.—R. W. WALLACE, Colchester.

The autumn Rose show.—The beautiful Horticultural Hall in Vincent Square will be a fitting place to hold the first autumn show of the National Rose Society, and every lover of our

national flower must wish the society every success. The splendid light available will show up the varied tints to perfection, and it is to be hoped all who are able to will show what can be done in the way of an autumnal display. As trade exhibitors depend largely upon the advertisement which such an exhibition must bring them if well attended by the public, it is to be hoped the authorities will do all in their power to make the exhibition known. A show of autumn Roses should be of more value to the would-be planter who is desirous of planting autumnal-blooming Roses than the summer display, for he may there learn what would be best for massing, especially if exhibitors would display their flowers in a natural manner. The bunching up system in vogue is extremely misleading, as no one can see what sort of spray the individual sorts yield. May I suggest that at the forthcoming exhibition all members may assist to make it a real success, not only by exhibiting, but also in mentioning the show among their friends.—P.

A note from Bournemouth.—"Beautiful Bournemouth" is the title, and a well-deserved one, that the citizens of Bournemouth give to their thriving Pine-surrounded town. For very pretty and interesting it is, though not grand and awe-inspiring like the scenery of the Yorkshire coast, which, with its black, towering cliffs, forms as great a contrast as it is possible to imagine to the pretty sandy cliffs, with here and there clumps of purple Heather and golden Gorse that one sees along the coast at Bournemouth. Heather and Gorse and Pine trees, with peaty pools and beds of silver sand, one sees stretching for miles round about Bournemouth. Floral curiosities, too, one finds on these heaths: Dodder, a pretty parasite that lives on the Heather and Gorse; also Sundew, the pretty little carnivorous plant that grows in damp depressions on the common. And everywhere the Pine trees, with Rhododendrons, Escallonias, and the coniferous trees of all sorts, give Bournemouth its name of "The Evergreen Valley of the South." With its warm climate and damp, peaty soil flowers grow in most of the gardens like weeds. Scabious, Begonias, and Zinnias, these three especially, seem to flourish here. The flowers grow as large as the pictures in a seed catalogue, and the colours are as bright. Such things as Tritomas, Gladioli, and the delicate Montbretias thrive exceedingly, also Lavender. On one mass of Lavender there must have been at least a score of white butterflies hovering over and settling on the fragrant flowers. At a certain boarding-house the low balcony is festooned with bright Nasturtiums, with hanging pots of Petunias and other annuals interspersed. The Fuchsias grow wild when let alone, and at Swanage, a little distance off, they grow into huge bushes. The Veronica, too, shows its pretty flowers freely, and grows to a good size. The round beds in the Public Gardens are very gay. In the deep pools in the bottom of Branksome Chine and in the reservoir white Water Lilies grow. Alas! a beautiful common, overlooking Poole Harbour and Branksea Island, is to be sold for building purposes. It is already marked out into hundreds of plots with the dreaded little white posts that precede bricks and mortar.—A. SMALLPEICE.

Royal Horticultural Society of Perthshire.—While the recent show of the Royal Horticultural Society of Perthshire was one of the largest and finest held since the inauguration of the society in 1806, it is to be regretted that the attendance was much smaller than last year. The total drawings for the three days only amounted to £69 11s. 3d., against £125 14s. 9d. last year. Various causes are assigned for this falling off, and a considerable feeling prevails that it will be necessary to provide additional attractions to induce the general public to come to the show. It cannot well be said that the society failed in giving the public an attractive programme, as, in addition to the magnificent show, the Beekeepers' Association held its annual exhibition in conjunction with that of the Horticultural Society. Probably one of the causes of the decline in the attendance was due to the Highland and Agricultural Society having held its show in Perth in July, when over £5,000 was the sum taken.

Begonia Argus.—A small group of this bedding Begonia is conspicuous in the front of the herbaceous border at Kew. It is a tuberous variety, and the bright double scarlet flowers are quite $3\frac{1}{2}$ inches across; they are borne well above the foliage on stiff, erect stalks. It is of vigorous growth, dwarf, and for a Begonia the flowers last on the plant a long time. It is one of Messrs. Blackmore and Langdon's introductions.—A. O.

Horticultural lecturers in the south of Scotland.—At the dinner to the judges at the successful Dalbeattie flower show, held on the 13th inst., some remarks were made by one of the number, Mr. James Blacklock, gardener to Sir M. J. McTaggart Stewart, Bart., M.P., Southwick, regarding the desirability of horticultural lectures in the county. Mr. Blacklock suggested that the various horticultural societies in the county should approach the County Council and urge the appointment of a horticultural lecturer. He threw out the suggestion that the lecturer might lecture on winter evenings, or that he might visit the various flower shows and give a demonstration and some instruction in the course of the afternoon. Mr. Blacklock said that a good deal had been done in the way of lectures for agriculturists, but nothing for those interested in horticulture. The suggestion was well received by those present.

Gladiolus princeps.—This hybrid Gladiolus is the result of a cross between *G. cruentus* and *G. Childsii*. It is certainly one of the best ever raised. The colour is crimson-scarlet with a small white irregular band on each of the three lower segments. The individual flowers are fully 6 inches across. It is very vigorous in growth. When the first flowers open the spike is short, but develops as the flowers open upwards. A single spike often has eighteen or twenty flowers, and with side shoots lasts for quite a month. The spikes when cut last in water a long time, the flowers continuing to open as on the plant. It is exceptionally easy to increase, a great number of little corms or bulbils being formed round the large ones. A bed on the Range Terrace at Kew is at the present time a blaze of colour.—A. OSBORN.

Late Peas.—Two of the finest late Peas shown at Shrewsbury on the 17th ult., where Peas are always remarkably fine, were Gladstone and Captain Cuttle. With these firm, well-filled pods, each containing ten or eleven Peas, and of the best possible form for shelling, we seem to have reached a standard of excellence that will be hard to beat. Edwin Beckett, Alderman, and Prizewinner were also fine, and Autocrat, though not so long in pod, was also largely shown. It was evident that in the West of England, and especially in Wales, the season has been an excellent one for Peas. Generally, for ordinary consumption, very large or long pods are not essential, but it is evident that when tested for quantity by shelling, the long pods, which give ten or eleven Peas, must have precedence over those which give only eight or nine Peas.—A. D.

Single Dahlias from seed.—Whilst we all know how easily single Dahlias can be raised from seed, and that is a matter of much importance to many who cannot store or care during the winter for root tubers, yet so many who love these pretty garden flowers have been loth to grow them, because the plants generally grow so tall and gross. When at Messrs. Sutton and Sons' seed farm, Reading, recently, amidst the wonderful wealth of beautiful seed-raised flowers there, I could but pause to admire their dwarf, compact strain of single Dahlias. Many hundreds of plants, ranging from 24 inches to 30 inches in height, were covered with flowers in so many colours, and of the best form. The plants evidently needed only a moderate amount of staking and tying. For furnishing flowers of a light and graceful character for vase or table decoration nothing could well be more pleasing. Really so profusely do the plants bloom that it is a case of cut and come again every day.—A. D.

St. Mary's Isle garden competition.—In accordance with her usual generous custom the Countess of Selkirk has again given

prizes for the best kept cottage gardens and the best creepers or climbers on cottages on the estate of St. Mary's Isle, Kirkcudbright. The judges were Mr. R. Service, of Messrs. James Service and Sons, nurserymen, Dumfries, and Mr. W. McGuffog, gardener to the Countess of Selkirk, Balmae. They have now issued a detailed award in which they express gratification at the improvement presented by the gardens since last year. The prize winners were—Section I.: First, Mrs. Lafferty, Old Stables, Cannee; second, Mrs. Jamieson, Mill of Senwick; third, Mrs. Graham, Auchencroft; fourth, Mrs. Kelly, Burnfoot; fifth, Mrs. Kirk, Sandside. Home district: First, Jessie Caldwell, Dromore; second, J. McBurnie, Little Balmae; third, John Boyle, Craillness; fourth, Mr. Shields, Balmae Stables; fifth, Mr. Beattie, Balmae Stables. Creepers: First, Mrs. Dorrance, Mute Brae; second, Mr. Taylor, Sandside; third, Mr. Graham, Low Newton.

The children's classes at Aberdeen show.—A large amount of interest has been taken in the new classes for pressed flowers and leaves open to children at the recent show of the Aberdeen Royal Horticultural Society. Prizes were offered for garden flowers, for wild flowers, and for leaves, all pressed and mounted on cardboard. Professor Traill, who kindly judged the exhibits, referred at the dinner in appreciative terms to the success which had attended the new classes, and to the benefit to the children which would accrue from taking part in such competitions. Several of the exhibits were worthy of special notice, and the youthful prize winners are to be congratulated on the excellence of their exhibits. In the class for the best collection of outdoor leaves, pressed and mounted on cards 18 inches by 30 inches, the first prize was won by Lizzie Pirie, Ashvale Place; that for garden flowers similarly prepared by Agnes Sangster, Skene Street; and that for wild flowers by Hector Duncan, Sunnyside Road.

THE FLOWER GARDEN.

THE HERBACEOUS PHLOX.

UNDER this heading I intend dealing with the group of late-flowering varieties known as *P. decussata*. The varieties have increased wonderfully of late, as many new forms come from the Continent, others are home raised. How numerous the varieties have become is shown from the fact that a well-known Scotch florist catalogues as many as 250 varieties, and it may be presumed that all are kept in stock. The late-flowering Phloxes fill a large gap among hardy plants; they come into bloom towards the end of July, and they continue in flower for the space of five months. Their brilliancy of tint seen in the carmine-coloured varieties makes them of great value for the decoration of the border, and they are as much at home and as effective in the cottage garden as in that of the ducal palace.

The herbaceous Phlox has been greatly improved during the past ten years, the improvement is seen in increased size of the pip, in the brightness of colour seen in the modern raised varieties, and also in the habit of growth; the varieties of some years ago, which grew to a height of 4 feet and 5 feet, have given place to those of much dwarfer growth, some of them only 1 foot in height. The development of sizes and substance in the pip is remarkable, some have been measured fully 2 inches in diameter, the range of colour has been broadened, there are many self-coloured varieties, and also many showing charming combinations of colours.

At the recent exhibition of the Taunton Deane Horticultural Society a very fine and varied collection of hardy flowers was staged by Messrs. Isaac House and Sons, nurserymen, Westbury-on-Trym, Bristol, and among them

quite an unique collection of herbaceous Phloxes, which included several recent novelties. Unfortunately, the crowded state of the tent in which the Phloxes were staged prevented me from taking notes so fully as I desired, but Mr. House kindly sent me a box of blooms of the finer varieties, and the fine development they exhibited pointed to the fact, not only that the soil near Bristol is suited to the growth of the Phlox, but also that the plants are well cultivated. These Phloxes I divided into groups of different colours, in order to make any reference to them as intelligible as possible.

The collection contained five white flowered varieties, the purest white I thought to be seen in Viola, but Sylphide and Flocon de Neige were of the finest form, though all are good whites; the last named is of very dwarf growth, not more than 1 foot in height, and all three throw fine trusses of blooms. The other two whites are Albatre and Laurence.

Blush or delicate lilac shades are found in James Farquhar, white centre, the margin tinted with lilac-pink, the pip large and of fine form. Henry Murger is a very fine variety, blush with large rosy purple centre, large well formed pip, one of the best. Jean Gerbeaux, blush with large bright rosy crimson centre, is also very fine, the pip large and well-formed. Conspicua is delicate pink with a circular rosy crimson eye, also of fine form.

Pink and salmon shades are found in Mrs. Oliver, soft salmon pink with white starry centre and slight pencillings of purple, very pleasing and attractive. La Siecle pale pinkish rose with white centre marked with purple, fine solid pip. Comete, pink flushed with delicate rose, large white starry centre, and slight purple line, large well formed pip. Mrs. James Farquhar, bright salmon-pink with white centre and slight lines of purple, fine form and very pleasing. Toreador, blush pink flushed with carmine, especially on the younger flowers, compact purple eye, well formed pip.

Some of the most showy and striking of the herbaceous Phloxes are to be found among the carmine and scarlet varieties, and they are always brilliant in the border. Of the seven varieties sent, and which may be classed under this heading, I thought Coquelicot the brightest, being of a warm carmine-scarlet, with purple eye, but it appears to lack substance of floret.

Etna is scarcely so vivid in its colouring; it is of a rich orange carmine, and has large and stout finely formed pips, extra fine. Roger Marx is of a deep salmon carmine with a purple eye, well formed pip. Tom Welsh, bright carmine with purple eye, a little deeper in tint than the foregoing, pip medium sized and fine shape. John Fraser, a little paler than the foregoing but distinct, large well formed pip with purple centre. Jocelyn, one of the largest, pips of fine substance, colour pale carmine with compact purple eye. Miss Pemberton, carmine flushed with salmon, large purple centre, fine stout pip and bold truss.

Lilac shades are found in Crepuscle, soft lilac with large rosy purple centre, bold pip and fine truss, distinct. Javanaise, large white centre margined with pale lilac, with a much deeper tint on the reverse, small dark eye, finely formed pip, very pretty and pleasing. Pharaon, large white starry centre round a dark eye, and margin of bright lilac, fine bold pip and truss.

Purple and violet shades are found in Cœur de Lion, very large pale crimson-maroon centre, margined with rosy lilac flushed with purple, fine bold well formed pip and truss. Walter Wright, bright rosy purple with dark centre.

Sesostris, a magnificent Phlox, deep bright purple flushed with rose, slight dark crimson centre, pip large, stout and finely formed, extra fine. Le Mahdi, bright violet flushed with purple, slight dark centre, also a fine and striking variety.

Few plants answer more generously to liberal treatment than the Phlox, and they are generally seen at their best when the weather is moist. Some of the more brilliant carmine shades are apt to become bleached by hot sunshine, and should therefore be shaded when required for exhibition. Such varieties might with advantage be planted on the north or east side of a row of trees so as to have the advantage of their shade. In such a position they should be well looked after in the matter of mulching and watering, as the roots of the trees might be found drawing goodness from the soil. Phloxes may be propagated by cuttings taken from the old clumps in February or March. They are slow in rooting, and should be kept close and moist for a fortnight or more, shading being carefully attended to. As soon as the young plants are sufficiently rooted and hardened off they may be planted out in well prepared soil, and with due attention many may be expected to flower in the autumn, and they generally produce fine spikes.

For exhibition purposes two year old plants give the best results. Clumps should not be allowed to produce more than three spikes. When they are required for showing they should be carefully tied to stakes of suitable length before the first pips expand. Before packing the spikes for a flower show they should be placed in water as soon as cut, and allowed to stand for two or three hours.

R. DEAN.

BEAUTIFUL ANNUAL FLOWERS.

I SHOULD like to supplement the descriptive list of hardy annuals by Mr. R. Dean in THE GARDEN for the 13th ult., both for autumn and spring

sowing. We grow a large variety of hardy annuals in the gardens here, and always find an article in THE GARDEN on the above very interesting. We grow most of the kinds, but not all the varieties mentioned in Mr. R. Dean's list. The *Brachycome iberidifolia* and *Schizanthus* are unsatisfactory with us if treated as hardy annuals, but by sowing in pans or boxes inside and planted out they make a good display.

Autumn sowing.—I think for spring flowering the *Leptosiphon* hybrids are amongst the prettiest, coming into bloom as they do with the spring bulbs with flowers of various shades. The plants grow only 3 inches high and like a sunny situation, and for either a sunny or shady situation *Ionopsidium acaule* is very useful. *Lasthenia californica* is very effective with its deep golden flowers, and flowering at the same time we have *Oxyura* (or *Layia*) *chrysanthemoides*, with yellow and white flowers, and *Platystemon californica* with lemon-coloured flowers. All three kinds grow about 1 foot high and seed themselves on the borders. They come up year after year, so that we have no trouble in keeping them. A very effective spring flower is *Erysimum perofskianum*, with bright orange flowers; it grows about 18 inches high. When this is sown in spring it will, after flowering, break out at the foot of the flower-stalk, and flower again the following spring and then die. *Nigella damascena* fl. pl. (Love-in-a-Mist), with blue flowers hidden in its feathery bracts, is useful. Another blue flower is the Woodruff (*Asperula setosa azurea*). It grows about 9 inches high and finds favour with many. For flowers of a bright red colour we have *Collomia coccinea*, which one does not often see in catalogues. We have grown it here for several years. Then we have *Coreopsis* of the tinctoria race; this, if sown early in the autumn, will flower the whole of the summer, and the flowers are very useful for cutting.

Spring sowing.—A very showy flower is *Chrysanthemum Morning Star*, with soft yellow or primrose-coloured petals and yellow centre. *Cosmos Golden Queen* is useful for cutting for decorative purposes. The flowers are a rich golden yellow, freely produced, and the plants grow about 2 feet high; they begin to flower early in summer and continue in bloom until autumn. Seeds of the above two kinds

appear to remain dormant in the soil all the winter, coming up freely in spring. *Linaria bipartita*, with purple flowers, and *Linaria reticulata aurea*, with scarlet and gold flowers, make very pretty annuals. These will sometimes stand the winter if sown in the autumn. *Phacelia campanularia* and *C. viscida*, generally known as *Eutoca viscida*, with bright blue flowers, should be grown by all lovers of hardy annuals. *Sphenogyne speciosa* is a showy annual with yellow Marguerite-like flowers. It likes sunshine. *Layia elegans* has flowers similar to the spring-flowering *Limnanthus*, and then we have *Delphinium Blue Butterfly*, which, I believe, is described as a hardy annual, but we find it more satisfactory if sown inside and then planted out.

Benslow, Hitchin.

A. W.

CARNATIONS IN THE FLOWER GARDEN.

It is unfortunate that many still cherish the idea that Carnations are not sufficiently hardy to withstand our English winters. The consequence is gardeners still neglect them, and are quite unaware of what Carnations are capable of and the important part they should take in the adornment of the flower garden. It has been said, "What is a garden without a Rose," and we might say, without a Carnations, too, for it comes next in importance. There are many flower gardens without either, not merely small gardens, but standard English gardens.

Now that there are visible on all sides signs of the commencement of a change in our mode of flower gardening which tends towards natural beauty instead of harsh formality, and variety instead of monotony, it would be well that the cause of the neglected Carnations should be pleaded, and a revival in their favour is much to be desired. Although we are told they are not neglected, many gardens tell an opposite tale, for Carnations have in many places never found a home, and are looked for, but in vain, unless it be some very poor seedlings, or a few remnants of former days stuck in some out-of-the-way border.

Carnations are perfectly hardy plants, and there is abundant evidence obtainable to prove this assertion. On the other hand, if Carnations are coddled, they are weakened in constitution and not able to withstand the rigours even of our often mild winters. In most cases the English system of growing Carnations has been that of coddling, and it has been thought little short of madness to plant Carnations out and leave them in the open air all the winter. Although some growers do go so far as to plant them out in spring, others grow them on into large pots and display them in full flower in glass houses or under canvas tents, and we are told it is not possible to obtain good Carnations blooms in the open.

When grown under such conditions it is impossible to judge of the merits of Carnations for outdoor English flower gardening, nor can it be expected that those who grow them as described are in a position to speak upon the matter with authority or from experience. Moreover, it is perfectly obvious that young stock propagated from plants grown in this manner, where soft shoots are made in too high a temperature, is the very worst wherewith to try experiments or to prove the possibility of Carnations living in the open ground throughout the winter.

In striking contrast to this system of culture, we have seen a collection of Carnations, numbering 2,000 plants, that were layered in the open air last summer from plants put out the previous spring. The layers were planted in the flower-beds last September and October, and all passed safely through the winter, not one perishing from cold; in fact, the plants themselves asserted their claims to hardiness, for during the first three months



CLEMATIS RECTA.

of this year some of the plants were thrown out by the upheaval of the soil caused by the expansion of water when frozen, and they might be seen lying upon the surface of the ground, not perishing, but, under the no congenial influence of a bitter wind, putting forth white fleshy roots in search of moisture. Due attention being given, and the plants replanted when the milder weather came, they grew away, and there is now no visible difference between those that were disturbed and those that were not. Experience proves also that Carnations planted in autumn are far superior to those planted in spring, provided, of course, that in the former case the plants are sturdy and hardily grown. The autumn-planted ones make a good root-growth before winter sets in. During the winter they remain dormant, but directly the temperature begins to rise they grow away and soon spread out into handsome, healthy tufts, when, even without flowers, they are an ornament to the flower garden. With plants put out in spring it is often just the opposite. They may be strong and healthy tufts that have been kept in a frame all the winter, but perhaps immediately after they are planted, a chilling, drying wind sets in before they have obtained root-hold, and the growth is weak and sickly, consequently producing inferior flowers, which lead some to say good Carnations cannot be grown in the open, whereas it is the system and not the plant that is at fault.

There are some soils better suited for Carnations than others, for we have seen the old Clove die off in winter by scores, but such cases are exceptional. The collection previously alluded to was not grown in the most favourable soil; far otherwise, for the soil is a cold and very heavy loam, which cakes and cracks with the alternations of wet and dry weather.

Quite recently, when passing a cottage garden in West Sussex, we saw some large plants that must have been several years old, for some had grown into veritable bushes 3 feet high, and others spread out into great tufts like the Pinks. Carnations vary in this respect, for while some kinds require to be layered and replanted every year, others do not, and in some soils a kind will grow more tufted. They seem to do better in places near the sea coast, being possibly benefited by a degree or two of more warmth. However, without a doubt, there are plenty of soils capable of growing good Carnations when once they are planted.

The culture of Carnations is so simple, and they give so little trouble, while there is so much of interest and beauty in them, that we feel confident if this fallacy of tenderness can be for ever exploded, Carnation growing will so greatly extend that undreamt of results will be achieved. We have ample evidence what can be done in the way of Rose growing. Why not then with Carnations?

A.

THE CLEMATISES.

CLEMATISES, together with their numerous botanical and garden varieties, form an interesting and justly popular group of shrubs and herbs, many of which are very ornamental and of exceptional merit in the garden. Upwards of 100 species and botanical varieties have been introduced, and quite half of these are suitable for planting out of doors in most parts of the country, and it is quite probable that this number will be greatly increased in the near future as new ones are constantly being introduced. In addition to this number there are a great many garden varieties which are all showy and popular.

The genus, in addition to being a large one, is very widely distributed, the United States, Asia, Europe, New Zealand, Australia, and Africa all having few or many representatives. In many parts of England *C. Vitalba*, better known as "Old Man's Beard," is found in quantity, and is usually very effective, clambering over high hedges and low trees.

As a rule species and botanical varieties are not often found in gardens, for, although many of them are very pretty, their beauty is surpassed by the several distinct types of garden varieties which have been raised by the horticulturist. In gardens the various groups are classed as follows: Florida, patens, lanuginosa, Jackman, and Viticella. To these may be added for convenience: Other shrubby species, Coccinea hybrids, herbaceous species, and tender species.

USES OF CLEMATIS.

As many are of trailing or climbing habit and, moreover, of rapid growth, they are excellent for planting against the walls of houses or pergolas, summer-houses, arbours, and similar structures. There are, however, many other purposes to which they may be put and for which they are not so largely used. One



CLEMATIS ON POLE.

way is to plant in large beds, giving a group of irregular-shaped Oak branches for a support. On these branches the long pendant shoots arrange themselves quite naturally. Then for covering rough or unsightly-looking fences the stronger growers are first-rate, for in a very short time an extensive space can be clothed with verdure. For planting to climb over old tree stumps and large roots they are also to be commended, while they succeed admirably when placed at the foot of some old bush and allowed to ramble about and intermingle with the branches. Some prefer companion plants with Clematis, and very fine effects are sometimes seen of a mixture of purple or white-flowered Clematis and green-leaved Ivy, and in the autumn the same coloured blossoms with the orange and scarlet tinted leaves of

Vitis inconstans (*Ampelopsis Veitchii*). The indoor species, more particularly those that can be cultivated in cool structures, are useful for draping pillars and rafters, while for the conservatory in spring forced plants of many of the garden varieties are not to be despised, for they are very showy and last in good condition for a considerable time. For this forcing they can be grown in 5-inch or 6-inch pots carrying from six to twelve or more flowers, or they may be worked up into large specimens occupying 12-inch or 14-inch pots, the branches being supported on wire balloons.

CULTIVATION.

Previous to planting it is necessary to see that the ground is well drained and worked to a depth of 2 feet, adding rich loam to the soil if it is at all poor. The best soil for Clematises consists of rich loam, neither very heavy nor very light, containing a fair quantity of chalk or lime. When preparing ground it is advisable to avoid using green manure, and, if manure at all is used, it should be kept at a good distance from the roots. If lime is not found in the soil lime or old mortar rubbish should be mixed in when trenching the ground. The best time to plant is October, November, or March, though those which are in pots may be put out at almost any time. Old specimens which it is thought desirable to transplant should be moved in October. As soon as planted stakes should be provided and the branches be securely fastened up. As the growing season comes round they should be looked round fortnightly and secured and trained in the required direction. A mulching of well-rotted manure should be given annually with a light dressing of lime every two or three years. An occasional watering with weak liquid manure is beneficial during spring and summer, while in dry weather water must be given as required.

PRUNING.

This requires a good deal of care, and should be done either during late autumn or early spring, the latter being the best time. The work should be given to an intelligent man, for the following year's display of flowers may be easily lost through bad pruning. The patens and florida groups, which flower in May and June, require simply the removal of dead wood. The Jackmani and Viticella groups, on the other hand, which produce their flowers from the current year's wood, must be hard pruned, and are, in fact, better if cut back to within five or six eyes of the old wood, that is after they have attained a fair size. The harder this section is pruned the better the growth and more numerous the flowers. The lanuginosa group should be pruned fairly hard, but not quite so much as the foregoing. Many of the species require little or no pruning. *C. montana* is helped by being cut back as soon as the flowers are over. *C. alpina* must on no account be cut back until after it has flowered, and then very little pruning is necessary. The herbaceous set simply require the old heads removed to make room for the young shoots.

PROPAGATION.

There are several means at disposal, namely, seeds, cuttings, or grafts. Seeds may be sown indoors in pots of sandy soil in autumn or early spring, and as soon as large enough to handle the seedlings should be potted up singly into 3-inch pots, planting them in nursery quarters as soon as large enough. This is the best method of increasing species. Cuttings may be used in the case of many garden varieties and some species. The best are obtained from young wood just as it is becoming firm

towards the end of June or beginning of July. They should be placed in pots of sandy soil and put into a close and warm propagating case. Grafting is often practised in dealing with garden varieties, and also with *C. indivisa*. Pieces of root 3 inches to 4 inches long are obtained from one of the strong growers, usually *C. Vitalba*, and on these short pieces of either old ripened wood or young soft wood from forced plants are worked, the operation taking place indoors in early spring. As the grafting proceeds the pieces of root are potted into small pots and plunged in a warm and close case, in which place they remain until the union of stock and scion takes place and young roots are pushing vigorously. Saleable plants can be quickly obtained from grafts, but some growers are now more in favour of cuttings, stating that plants on their own roots are not so liable to be attacked by disease. Several forms of grafting are employed, side and wedge being the most common.

It grows to about the same height as the foregoing, flowers profusely, and is at its best during May and early June.

W. DALLIMORE.

(To be continued.)

THE AURICULA— SEPTEMBER.

DURING this month give all the air possible, and expose on all favourable occasions to the heavy dews at night. The plants grow fast and make handsome growth, for it is their second spring. Everything possible must be done to secure good, sturdy, healthy growth, to enable the plants to pass safely through the long winter. Many will now throw a flower stem, the buds of which should be gently rubbed off, when the stalk is clear of the foliage. Autumn blooms are never in good character, and may prevent the plant from

sporting, but the culture is easier, since absolutely no artificial heat is required. To obtain the spores is easy enough if the would-be raiser has access to a collection of good forms, and can thus obtain a few fronds when they are fertile. In this case he, of course, acquires a knowledge of the varieties he starts with, which is a great advantage. If, however, this is not practicable, his next best plan is to purchase a packet of mixed spores from one of the few nurserymen who make a speciality of British Ferns, in which case his harvest will probably be far more diversified, though his subsequent naming of the resulting collection may require the aid of a specialist. In the first case, however, he is fairly sure to find greater variety than the fronds sown from would justify, since in every collection the spores of all the kinds become scattered upon the adjacent fronds of other sorts, so that a pure sowing of a particular variety is almost an impossibility, as these stray spores naturally germinate with the specially sown ones. Where acquired fronds are in question, these should be gathered so soon as the spore heaps, which appear in dots and lines in different ways upon the backs of fronds of different species, are brown or bright yellow, or in the Royal Fern of a dull green. The fronds should then be laid separately, backs downwards, upon sheets of glazed paper, upon which, in a few hours, the spores will be shed profusely, sometimes actually so as to resemble a tinted picture of the frond itself.

Their number is simply enormous, adult plants producing many millions. The deposits can be collected by merely folding the paper once and tapping it until the spores fall into the fold in a long heap. As no amateur desires a crop of a million or so, and each of these spores requires at least one-eighth of an inch of soil surface for its primary development, it is clear that a very tiny pinch is sufficient for an ordinary pot or pan, and when we say that we have raised 800 Hart's-tongues from a sowing in a 2-inch pot it is obvious that such a pot is big enough for ordinary cases. We may, therefore, now consider how to sow them on these lines. Our plan is to take a 9-inch square pan and fill it with fresh Cocoanut fibre, into which we lightly pack as many such small pots as it will hold. These pots we then fill with a mixture of loam, leaf-mould, and coarse silver sand, two, two, and one part in proportion, topping them with a little crumbled loam. These being installed, we take a kettle of boiling water, and, placing a small piece of paper on each pot to prevent washing up, we pour this water on to the paper until it runs out at the bottom of the pan scalding hot, which means repeated pourings, as the soil cools the water greatly, and the object of the scalding is to kill all worms, germs, and insects' eggs, which might eventually do damage. The fibre itself should, therefore, be similarly saturated. We then place a sheet of glass over the whole, and set it away until quite cold. To sow the spores we remove the paper and scatter them as thinly and evenly as possible over the surface of the soil. In doing this we take out each pot and treat it separately, as otherwise the spores are so light that some would be sure to reach the other pots and upset the register which should be kept. This register we keep by putting a small wooden label bearing a number, this number representing a name entered in a book for recording purposes. The sowing being finished the glass should be replaced and the pan placed in a shady (but not dark), cool place. At this time of year in a week or two we shall note a greenish tint spreading on the soil, showing the spores have germinated, and in a week or two more the surface will be covered with tiny green growths the size of herring scales, and not unlike them in shape, each spore having produced a heart-shaped primary frond or prothallus. A period of apparent rest then ensues, during which, however, the equivalent of male and female flowers are produced on the under sides of these scales in



CLEMATIS MONTANA OVER A ROUGH WALL.

Below is given a brief description of the various types, together with a select list of species and varieties.

PATENS AND FLORIDA GROUPS.

These two groups may be readily placed together, for they require similar treatment and are in many respects much alike.

C. patens, which was described by Lindley as *C. cerulea*, is found in China and Japan, and, according to Loudon, was introduced to our gardens in 1836. It grows to a height of 12 feet or so, and forms a large tangled mass. It is a profuse bloomer, and opens its flowers in May, June, and July. The flowers are fairly large, 4 inches or more across, with six or eight bluish sepals, which are quite separate from each other.

C. florida is also a Japanese plant, but is a much older introduction, 1776 being given as the year in which it was introduced. It differs from the foregoing by having slightly smaller flowers, white in colour, with the sepals close together and slightly overlapping each other.

doing its best in spring. Too much attention cannot be given to watering and cleanliness. As the large summer foliage dies it must be carefully removed; in fact, decayed leaves at all times should be removed, but not till they are quite yellow. Continue to keep a sharp look-out for a small green caterpillar and also green fly. It is attention to these apparently trifling matters that enable some growers to so much outdistance others.

W. SMITH.

THE FERN GARDEN.

FERN SPORES.

AMID all the many branches of the horticultural cult, undoubtedly one of the most interesting, and one most within the reach of the amateur with little space at command, is that of raising Ferns from spores. If, indeed, the spores be sown of some of the finest varieties of our native Ferns, the interest is not only greater by reason of diversity in the offspring, due to secondary

the form of microscopic protuberances, and by the under action of these we shall presently see tiny fronds peeping up in all directions. Should, despite all precautions, a very crowded crop result, larger pots or pans can now be filled and sterilised as before, and into these little patches of the scales and young plants can be pricked an inch apart, giving both them and the balance left sufficient elbow room. The rest is easy, as it is only necessary to prick out and pot on until the adult specimen stage is reached, when, as all the species likely to be raised thus are perfectly hardy, they can be installed in shady rockeries out of doors or pots in cold conservatories according to taste and space at disposal. One thing is quite certain, and that is that one who has carried such an operation through on proper lines, that is, with spores of choice forms, would never again give even garden room to the common wild Ferns they have arisen from, but so far surpass in beauty and variety, and all this can be done for an initial outlay of 1s. or 1s. 6d., the cost of the spores, the result of which may be a garden full of gems.

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

TREES AND SHRUBS.

VARIEGATED TREES IN GARDEN SCENERY.

NO one, I think, would question the value of variegated or golden-leaved trees when intelligently employed in producing pleasing effects in garden and park landscapes or any scenery of artificial creation. Their power of relieving the monotonous greenery that prevails among trees throughout the summer is recognised by all, and therefore the chief object in planting variegated deciduous trees should be to render garden and park scenery more interesting and cheerful. If you ask a landscape painter why he prefers to paint an autumn or winter landscape to that of summer or spring, he will probably tell you that in summer the monotonous greens that prevail everywhere in natural scenery among trees are without character and not very suitable for painting. In spring, when less critical people are charmed by the bursting bud and unfolding leaf suggestive of new life and vigour, the painter will say that Nature's colouring is crude, and to him a spring scene is insipid. He waits till autumn, when the greens break into a multitude of rich and mellow tints—here a Sycamore a mountain of cloudy gold, there a Thorn, Cherry, or Cornel radiant in scarlet, red, and purple, while between these extremes the whole gamut of subtle tints is displayed and brought out in strong relief against the verdure of the trees that do not change their leaf colour at the fall. Such is the scene that the painter delights in, and in a mild way, with the rich material we now have, we can produce throughout the summer the striking effects that charm the artistic soul in the season of decay. The effect of planting trees and shrubs with strongly pronounced foliage tints may be good or bad, according to the way these strong colours are grouped and distributed in garden scenery. Generally the result is bad, either because the variegation is too abundant, producing a spotty effect, or because the trees have been grouped in a careless way in respect of colour. Rather, I should say, too much care is taken to produce striking contrast, for how often do we see a Purple Beech grouped with a Silver Maple in order to get a contrast. Contrast it certainly is, but one that is too harsh to be pleasing—the one quite neutralises the effect of the other. Golden Elder and Purple Hazel is another favourite mixture, but how seldom is the effect produced pleasing. This injudicious grouping of colour, however, is far less objectionable than the commoner error of dotting the whole place at regular intervals with white and yellow patches, which is far too prevalent in small suburban gardens, and in not a few large ones, planted in accordance with the nurserymen's recipe. I venture to assert that nine out of every ten gardens about London planted within the last twenty years by

nurserymen exhibit the glaring fault of too many variegated and golden trees, and too few of those that are really beautiful either in flower, leaf, or growth. One can tolerate a nurseryman's specimen border, however commonplace and tasteless the arrangement may be. He has trees to sell, and he naturally aims at displaying them to the best advantage; but when he attempts to plant a private garden the case is different, though it is seldom thought to be. I could point to several prominent large gardens about London that reflect the nursery specimen border, some where a sallowness is cast over the place by the superfluity of the beautiful, but much abused Golden Yew; others having the effect of a laundry ground from the abundance of Silver Maples, and not a few where ornamental conifers—those destroyers of beautiful gardens when used in excess—have been planted at regulation intervals of a few feet, just as a nursery border is set out with young trees that are constantly transplanted.

Were I to enumerate all the variegated and golden trees and shrubs that are now to be seen in the nurseries, I should have to make out a very long list, but I hold that there is but a comparatively small number of kinds that are of real value to the landscape gardener. The nurserymen are always eager to seize upon a sport of variegation, but not equally wise in discriminating that which is really ornamental. The result of this is that we have numbers of so-called variegated and golden trees and shrubs that are anything but ornamental, always wearing a sickly look. A list of choice deciduous kinds should include the variegated Sycamore and the variety Leopoldi, the variegated Negundo (*Acer Negundo variegatum*), Worley's Maple, with pale bronze-yellow foliage; Golden Catalpa, Golden Sweet Chestnut, variegated Dogwood (*Cornus alba variegata*), Spath's Siberian Dogwood (*C. sibirica Spathii*), Golden Ash (*Fraxinus excelsior aurea*), Golden Oval-leaved Privet (*Ligustrum ovalifolium aureum*), Golden Mock Orange (*Philadelphus coronarius aureus*), Golden Canadian Poplar (*Populus canadensis aurea*), Golden Oak (*Quercus Robur concordia*), variegated Turkey Oak (*Q. Cerris variegata*), Golden Acacia (*Robinia Pseudacacia aurea*), Golden Elder, Golden Spiræa (*S. opulifolia aurea*), Golden Snowberry (*Symphoricarpos racemosus variegatus*), Golden Elm (*Ulmus Dampieri aurea*), Silver Elms (*U. campestris variegata* and *U. glabra variegata*), and Golden Weigela (*W. Looymansii aurea*). Among purple-leaved trees and shrubs there are numerous beautiful kinds. Besides the Purple or Copper Beech, the Purple Sycamore, and Purple Birch, there is the newer Purple Cherry Plum, so effective if properly placed, and among shrubs there are the Purple Barberrry, quite indispensable to a picturesque shrubbery, and the Purple Hazel. What charming effects one can produce with these in combination with the beautiful Eleagnuses, Shepherdias, silvery Poplars, and the like, not to mention the delicate greens and dark greens which abound now among ornamental trees, evergreen and deciduous.

The plants are from a nursery list under the names by which they are known best, and I think it includes all the finest of the common kinds, and they afford abundant material for planting for ornamental effect. How to distribute and group this colour cannot be told in writing. The experienced eye of a tasteful planter, and that alone, will be the guide. He will aim at producing distinct and decided effects in relation to the surroundings; he will avoid dotting the plants about in a haphazard way; he will blend his greens, golds, silvers, and purples in such a way that one colour will not destroy the effect of the other; and he will aim at a scene on a small scale imitative of that which Nature does in autumn when strong and rich tints of varied shade prevail in every wood.

SOME OF THE SHRUBBY HYPERICUMS.

THE Hypericum family is a very extensive one, and includes hardy annuals and biennials and hardy herbaceous and shrubby perennials. The hardy

shrubs of the genus number about twenty species altogether, of which only about half a dozen are what may be termed really good garden plants, the remainder being chiefly of botanical interest, or in general appearance so much like other species that it is not worth while to plant them in the garden. All the Hypericums are easily grown in warm, sandy soils, and should have full exposure to the sun to ensure their thorough ripening, as some of them are somewhat tender, and suffer from frost if the wood is not thoroughly ripened. On cold, heavy lands some of them are not satisfactory, neither in growth nor quality of bloom, while frost often plays havoc with them. A light soil is best for them, as they rarely, if ever, suffer from drought, and dry, sunny weather seems to increase both the quality and quantity of their flowers. Propagation is effected by seeds, by cuttings taken in summer and rooted under glass, or by division of the roots in early spring. To increase by the latter method—which, by the way, is the easiest—old clumps should be pulled to pieces, each portion that has a few roots attached being sufficient to form a fair-sized plant in one season. This is best done in March or April, especially with the tenderer ones, when all danger of continuous frost is past. The following Hypericums can be recommended as a good selection, and, flowering as they do from the middle of June until well on into September, are worthy of a place in every garden.

H. androsæmum (the Tutsan).—This is a native of Europe, including Great Britain, and forms an evergreen shrub about 3 feet high, consisting of numerous reddish-coloured stems springing from a woody rootstock. The leaves are about 3 inches long, and of oval shape. In a young state they are strongly tinted with red. The flowers are borne in terminal corymbs, and open through June and July. Each bloom is rather less than an inch across, of a pale golden yellow colour, and are produced in such quantity as to make up for their lack of size. They are followed by round shining red berries, ultimately turning black as they ripen. They are full of seed, which germinates readily almost anywhere. *H. androsæmum* grows almost as well in damp shady places as in the open, and it is rather surprising that it is not more generally planted, as it is well worthy of a place in the garden or shrubbery.

H. calycinum (Rose of Sharon or St. John's Wort). This is a dwarf evergreen shrub about a foot high, spreading readily in all directions by means of underground stems, which make it one of the best subjects we have for clothing dry banks where practically nothing else will grow. During June and July they are covered with the terminal, solitary, bright yellow flowers, which are amongst the largest of the family. They are from 3 inches to 4 inches across, and filled in the centre with a conspicuous mass of slender stamens, topped with red anthers. A bed of this is much improved by being cut down to the ground about every third or fourth year. This should be done in the early spring, and, with a light top-dressing of good soil at the same time, the plants will greatly increase in vigour. It is a native of Eastern Europe.

H. hookerianum (*H. oblongifolium*).—This is a native of the Himalayan region, and is an upright shrub 4 feet or so in height, with dark green shining leaves and bright golden yellow flowers. Unfortunately, it is rather tender, and, though the roots may escape without injury, yet if the stems are cut down by frost the plants take two years or more to fully recover themselves, as this species is not such an annual bloomer as the other Hypericums, but requires a woody, matured growth before it will flower freely. It is, however, worthy of a trial in every garden, as when in full bloom it is one of the gems of the genus.

H. moserianum.—This is a hybrid between *H. calycinum* and *H. patulum*, and raised by M. Moser. It is one of the best of the genus. The flowers appear from the end of June until September, and are borne in terminal clusters of from three to seven. They are 2 inches or more in diameter, of a deep yellow colour, and have conspicuous red anthers. The leaves are 2 inches long, bright green above, and glaucous beneath. The plant grows from 1 foot to 2 feet high, and, though it partakes to a certain extent of the tender nature

of *H. patulum*, yet, though cut to the ground in the winter, it will throw up fresh stems in the following spring, and flower profusely in season. There is a variegated form of this (*H. m. var. tricolor*) which is very pretty, but is not hardy enough for outdoors, though it makes a useful plant in pots for conservatory decoration.

H. patulum.—This is a native of India and Southern China, and is a shrub 3 feet high and as much in diameter when fully developed. It is rarely, however, seen more than about half this size, as it is rather tender and gets cut down by frost, though not often killed outright. The stems are slender and twiggy, and are clothed with leaves 1 inch to 2 inches in length. The flowers open during July and August, and are about an inch across, borne in terminal clusters of three to seven. They are of a deep golden yellow colour.

H. prolificum.—This is a native of North America, and, though not so showy as some of the above, yet it is worthy of a place in the shrubbery for its freedom of flowering and growth. It is a shrubby bush about 2 feet in height, with slender stems bearing terminal clusters of yellow flowers about 1 inch across. The leaves are 1 inch to 2 inches in length, and of a deep shining green. This plant is often known as *H. kalmianum*, another North American species, from which, however, it differs in its larger size in all its parts, *H. kalmianum* only growing about a foot high, and bearing paler coloured flowers.

Bagshot, Surrey.

J. CLARK.

ROUND ABOUT A GARDEN.

A FLOWER OF AUTUMN.

NO flower of the garden is more especially appropriate to its season than the Torch Lily, or Red-hot Poker of familiar garden lore, which flames in the perennial border now. Its magnificent brilliance of scarlet and yellow seems the very essence of the autumn tints, which, stealing in crimson upon the Virginian creeper, and splashing with bright orange clusters of berries, the deep green of the Rowan tree have already lighted up the first glories of the sunset of the year. All this the Torch Lily brings to mind with the first flaming spike which it holds aloft, brightening and lengthening from day to day, and then as gradually burning itself away. And as the type of autumn it is the more complete, because there is no flower which even at the height of its splendour more plainly shows its seamy side, in the scores of dead and withering flowers which hang below its brightest ring of colour, just as the autumn-tinted foliage is nearest to decay where it glows the most.

THERE ARE POKERS AND POKERS.

As a name for popular use, Red-hot Poker will, no doubt, survive for ages. It recommends

itself so strongly to the sense of humour of childhood that the plant remains ever after one of the select few whose names are never forgotten; yet if you look at it you will see at once that the name is inappropriate, because the brightest part of the spike, which would be the hottest part of the poker, is always below and not at the end. But the real objection to the name is that it is *too colloquial*, and bestows the name of one familiar object upon another without qualification, so that one could not

DEATH TRAPS FOR INSECTS.

To return, however, to the Torch Lily—*Tritoma* or *Kniphofia*, Red-hot Poker or Flame Flower—one of its excellent characteristics is the trap which it occasionally provides for wasps and earwigs. Each of these insects seems to be so exactly fitted by the tube of the blossoms that often, when it has crawled in, exit becomes impossible. This occurs most frequently in damp and chilly weather, when the luckless insects appear to have remained inside long enough for the flower to shrink upon them; and it is only by the tightness of some of the withered blooms afterwards that you can recognise those which contain dead prisoners. Although the slaughter of wasps and earwigs by this means is not extensive enough to recommend the Torch Lily as an exterminator of noxious insects, yet it is interesting, because the plant seems to gain no sort of advantage from it. Like the common Furze, which, growing on some wind-swept corner, is often generously decorated with the corpses of moths and butterflies that have spiked themselves upon its spines, the Torch Lily seems to be merely an accidental danger in the path of the



TERRICK ELLESBOROUGH, TRING.

use it in some connexions without ambiguity. Thus to say that an eccentric man "had a Red-hot Poker in his buttonhole" or that a lady "came to the door with a Red-hot Poker in her hand" would render one liable to serious misconception. This could be avoided, of course, by speaking incorrectly of "a Red-hot Poker flower," but the essence of a good name is that it should describe the object without necessity for added words to make the meaning clear.

OLD AND MODERN NAMES.

Many of our old names for familiar flowers—such as Bachelor's Buttons, for instance—are open to the same objections; while others, like Love-lies-bleeding, are too fanciful and elaborate for easy use. Others, again, carry in their derivation the coarseness of metaphor, which was accounted no blemish in ruder ages; while yet others are in different localities given to different kinds of plants. Some which, like Heart's-ease, although a little lackadaisical in sentiment, deserve to live, have nevertheless gone gradually out of fashion, leaving us instead a confusion of modern titles—for not many of us, off hand, would like to define the meaning of *Violas*, bedding *Pansies*, fancy *Pansies*, show *Pansies*, and Tufted *Pansies*, all children of the Heart's-ease. There are, of course, many delightful old flower names, such as *Speedwell*, for *Veronica*, which should never be allowed to fall into disuse; but we sadly need some authoritative committee to take the whole question of the English names of flowers in hand, and to draw up a list of those which should be used in future.

incautious insect. Yet the Teasel, whose joined leaves make cups for rain water, in which many small insects are constantly drowned, probably reaps advantage from their decaying juices, and clearly suggests how the Pitcher Plants gradually elaborated their death-traps. So it is quite possible that ages hence even the Torch Lily may become an accomplished carnivore.

E. K. R.

A WATER, ROSE, AND JAPANESE GARDEN.

TERRICK, ELLESBOROUGH.

IN the garden of the Comte Mauny de Talvande at Terrick, near Ellesborough, Tring, the three chief features of interest are the water garden, Rose garden, and Japanese garden, and these are additionally interesting from the fact that they were only made last year. They serve to show what good results can be obtained in a short time. The immediate surroundings of the picturesque Queen Anne residence, which is shown in one of the accompanying illustrations, needed careful and special treatment. A formal entrance court, with Bay trees, *Hydrangeas*, &c., in tubs, is in keeping with the somewhat bare and austere north front, while the southern side, smothered in creepers which festoon the windows and make the walls a mass of pleasant greenery, looks upon a garden which is also formally designed,

but contains beds and borders filled with bright-hued flowers; the paths are paved and the boundaries are defined by hedges of Yew. Immediately beyond is the water garden, of which we are able to give an illustration also. Although, of course, it is yet somewhat bare, considering that it was planted so recently as last year, the results are most gratifying. Flag Irises, Irises English, and Irises Japanese fringe the banks, and their quaintly-beautiful flowers hang gracefully over the water, and, being reflected there, gain an added beauty. Nymphaeas luxuriate in the shallow pond, whose surface is studded with their glistening cups, as they gratefully expand in the warm rays of the sun. Sedum spurium makes a carpet of red on the stony bank, and keeps company with Rock Roses, some of the Gentians, Saxifrages, Pinks, and other plants that delight in a warm, sunny position. Close by the water, with their roots practically immersed, are yellow and red Mimuluses, Pinguicula, Ranunculus, Butomus, and other moisture-loving plants. A bed of Rhododendrons and Azaleas hides the sunken water garden from view as one approaches from the house, and in admiring the Lilies that luxuriate in the semi-shade of those plants and the peaty soil, in which they thrive best, the near presence of the water garden is not even suspected until its smiling, flower-studded surface lies before one. In fact, Terrick is, and will be still more so as time goes on, a garden of surprises. And what more delightful feature can a garden possess than this? Surely the creation of surprises should be one of the aims of the garden maker.

On the other side of the water garden are some splendid beds of Rose Mrs. John Laing, a favourite at Terrick; another hedge, and then the Rose garden proper, which contains hundreds of plants of Mrs. John Laing, Caroline Testout, and many more of the best Hybrid Teas and Hybrid Perpetuals. Of climbing Roses, of which there are many at Terrick, Comte Mauny de Talvande thinks highly of Reine Marie Henriette, Queen Alexandra, Waltham Rambler, Blush Rambler, and W. A. Richardson. The standard Roses are excellent, as, indeed, are all the Roses here. They have made a splendid growth, and give promise of making a wonderful display when well established. The long grass path leading to the kitchen and fruit garden is fringed by borders of herbaceous perennials, among which the Delphiniums, Madonna Lilies, and Orange Lilies are conspicuous, while the Sweet Peas, in distinct colours, are planted separately, and

add a welcome tone of colour among the monotonous greenery of fruit trees and vegetables.

The Japanese garden has been made in a shallow dell beneath forest trees on the north side of the house. It is of too recent formation for the planter's design to have fully developed. The characteristic features are still dormant, waiting for the hand of time to mould them into form. There are groups of Bamboos, of Plantain Lilies, of Japanese Lilliums, as well as pathways of stepping-stones and garden ornaments, inseparably associated with a Japanese garden. Comte Mauny de Talvande is about to form another Rose garden, a work in which he takes keen delight, the gardens at Terrick having been made from his designs and planted to his suggestions. There are other points of interest at Terrick, but in the possession of those we have mentioned lies its chief attraction.

THE ROSE GARDEN.

ROSES IN POTS.

WHEN the cold, frosty nights of October and November set in well-developed Roses are esteemed, and even more so in the early spring months. Amateurs and others who make a speciality of

Roses always have their plants before them, and whenever there is a press of garden work demand-

flowers in passable condition. Everything has required water, and at such times the plants which have been turned out of doors for the summer are apt to suffer from mere lack of time to give them the attention they daily need.

To do Roses well in pots some care is necessary in repotting them, and the potting material should be of the best quality. They are also impatient of stagnant water at the roots; therefore free drainage must be provided for them, and the plants must also be stood in a position out of doors where worms cannot find ingress by the holes in the bottom of the flower-pots. Before commencing to repot, see that the leaves are quite free from insect pests and mildew. They are very liable to be attacked by mildew, and it is very destructive indeed, quite spoiling the leaves and effectually checking their growth. I find the best way to get rid of it is to lay the plants on their sides and thoroughly syringe them with soft soapy water, in which has been dissolved about 3oz. of sulphur to each gallon of water. This not only destroys the mildew, but also the aphid tribe and red spider. I have only once had to deal with the orange fungus. It appeared on some pot Roses I had in from the nursery, and, not having seen this pest before, I was alarmed and felt much inclined to burn the whole lot of plants and stand the loss of them. Second thoughts are often best, and it was so in this instance, for I carefully cut out every bit of disease, and as the plants were not large I dipped them in the soft soap and sulphur mixture, and, as a positive fact, that was the first and last I ever had of the orange fungus amongst the Roses.

After dipping or syringing the plants, let them lie on their sides for an hour or two to drain off the water, for if it drains down the stems and into

the flower-pots the roots are injured. It will be seen in a day or two whether the leaves and stems are quite free from their insect and parasitical enemies, and, if they are, give a thorough syringing with rain water, and when the leaves are dry set about repotting them. I use a mixture of good fibrous yellow loam, to which has been added a fourth part of leaf-mould, as much decayed stable manure, and an 8-inch potful of crushed bones to each barrowload of loam; a little coarse sand may also be added. The old spent soil should be forked out from amongst the roots to a considerable extent with a pointed stick, or, what is better, a pointed iron kept for this purpose. Some tough fibre is



THE WATER GARDEN AT TERRICK (MADE LAST YEAR).

always placed over the drainage to prevent the finer particles from mixing with it. The potting material is worked well in amongst the roots, and packed in rather firmly with a wooden rammer. See also that the plants are moderately moist at the roots before repotting them, and do not give any water for at least a day after repotting. In dull, drizzly, cold weather water may not be needed, for it is an error to give newly-potted plants much water until the roots have taken well hold of the new potting soil. The Roses may be

ing attention other things may suffer, but the Roses never. My own experience with general gardening has been that gardeners are apt to allow their pot Roses to be neglected during the summer months. Mildew, green fly, and red spider get upon the leaves, and the time required to keep them clean is not easy to be found. In a season such as we have passed through in the south of England, and in gardens where no additional hands have been found to do the work, gardeners have been at their wits' end to keep their plants and

left out in the open garden until the beginning of October, with the exception of the Tea-scented kinds, which would do better if they were placed under glass after repotting; moreover, they also prefer lighter potting soil than the Hybrid Perpetual and other hardier Roses. A little light fibrous peat added to the compost as above would greatly improve it for the Teas.

It is pretty well known that the Teas are by far the best for autumn blooming, and plenty of Roses can be gathered from a bed of them out of doors until damp and cold nights prevent the blossoms from opening, and it is after this time that the pot Roses come in useful for autumn and early winter blooming. We have a house, light and airy, constructed for flowering Tree Carnations, zonal Pelargoniums, Bouvardias, &c., and the treatment these require in October, November, and December exactly suits the requirements of the Roses if they have been prepared by resting at the right time after the summer or spring flowering was over. The plants should be allowed to become comparatively dry at the roots and be rested, as they would be in some districts in the south of Europe, where these Tea Roses form a large industry for the production of cut blooms in the winter. In the Riviera scarcely any rain falls from the beginning of May until September. Roses lose their leaves owing to drought and heat, and the long days of summer are their period of rest. In August or early in September they are pruned, and Roses thus treated will flower in the Riviera from late in October until the middle of January. We can imitate very nearly the conditions of the south of Europe with our Tea Roses in pots, for they are far better for our purpose than the Hybrid Perpetuals. Although both are grown in the south of Europe, they are not equally well adapted for greenhouse culture here. The plants should be kept comparatively dry after flowering, and if it rains keep the rain from them. Prune them in August, and when they have well started they may be placed in the house where they are to flower. This house is heated with 4-inch hot-water pipes in the usual way; and besides this a flow and return 1-inch pipe have been fixed to the roof, one of them about 1 foot from the bottom of the rafters, and the other 9 inches higher up. These small pipes are of much value in drying up condensed water, and also for preventing frost from gathering on the glass at the bottom of the rafters. J.

GARDENING OF THE WEEK.

FLOWER GARDEN.

PLANTING AND TRANSPLANTING LILIES.

IF it is found necessary to move any established clumps of Lilies, this is best done as soon as the leaves and stems have ripened, getting everything in readiness beforehand, so that the bulbs are not exposed to the drying influences of the air longer than is absolutely necessary. Liliiums thrive best in a partially shaded position, or at least in a bed or border which receives direct sunshine for only a few hours daily. Nearly all of them require peat in varying proportions. When planting it is not wise to dig in any manure; the first aim of the cultivator should be to get the plants established. With some kinds this may take several years. This done any feeding that may be necessary can be given either in the form of a top-dressing of decayed manure or liquid manure water when the flower-spikes are well above the soil. Some North American kinds require more peat and moisture than most of the others. Where it is hardy the noble *L. giganteum* should be grown. This is also a moisture-loving plant, and requires thorough drainage and plenty of decaying vegetable matter and leaves to root into. Such kinds as *L. auratum*, *Humboldtii*, *bulbiferum*, *tigrinum*, *Martagon*, and their varieties are most at home in a stronger soil with a good proportion of rich loam. For a light soil *L. candidum* and the more delicate *longiflorum speciosum* and their varieties are to be recommended. Unless they are quite hardy it is not

wise to plant many of the newer and more expensive varieties, but an occasional bulb may be planted to settle the question of hardiness, and if they thrive such plants are of great interest. If upon their receipt any bulbs are bruised or shrivelled they should be laid in moist soil until they have become plump, when, after all dead scales have been removed, they may be planted. As most Lilies send out roots from the stem just above the bulbs they should be planted fairly deep; 4 inches to 8 inches, according to size, will usually be found a suitable depth. Some protection from frost will be necessary, and, above all, they must be in a position sheltered from all rough winds.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

BULBS TO BE POTTED.

THE bulbs to be potted will depend very much upon individual requirement, but in any case to keep up a succession of bloom during the winter and early spring months it will be necessary to pot up at once such kinds as will afford an early display; for the purpose Paper-white Narcissus, double Roman Narcissus, double Daffodil (*Telamonius plenus*), Roman Hyacinths, Crocuses, Snowdrops, Scillas, and Early Duc Van Thol Tulips. The bulbs will succeed equally well in a compost of loam, leaf-mould, and sand, and should, if the soil be in proper condition for use, be potted moderately firm. Sand or cocoa-nut fibre is the best material in which to plunge the pots until they become filled with roots. Afterwards, and just as the bulbs have shown growth from the centre, remove them from the plunge-bed to a cold frame, where they should for a week or so remain previous to being taken into the forcing-house.

WINTER-FLOWERING PELARGONIUMS.

The continued wet weather has caused the soil in the pots to become saturated, a condition that should not exist for long, or the plants will soon lose a great portion of their leaves, and there will be little prospect of their doing any good afterwards. With the shortening days and declining degree of heat there is naturally less evaporation of moisture; consequently to keep the plants healthy and in good flowering condition remove them at once to the shelter from heavy rains, where they can have abundance of air and light to mature their growth.

J. P. LEADBETTER.

The Gardens, Tranby Croft, Hull.

FRUIT GARDEN.

MELONS.

THE outside linings of the pit or frame must be frequently renewed to keep up the necessary heat to thoroughly mature the fruits. The plants will require very little, if any, water at this season when approaching ripeness. Where a good depth of material is used none will be required. The fruits should be kept well raised and fully exposed to have the benefit of sun and light, and be occasionally turned so as to secure even size and good finish. Thin out the laterals and keep the foliage thin and evenly distributed over the whole frame. Later Melons grown in houses will now need more careful treatment, as the sun and light decrease, as regards watering and less atmospheric moisture. Give plenty of air early in the day when the weather is favourable, and syringe the plants on bright days only, damping the paths and walls being sufficient in dull and wet weather. Do not overcrop the plants at this season, two fruits being quite enough for the plants to mature. I have found it a good plan to grow the latest plants in 12-inch pots, allowing them to carry one or two fruits, according to the strength of the growth and the variety. The watering of plants grown in pots is kept more even, without any loss from canker or other causes. Should the autumn be wet and cold better flavour is obtained from plants grown in pots than from those in beds. Keep the bottom-heat steady at about 80° to 85° and a night temperature of 68°, with the usual rise during the day from sun-heat, always closing early on bright afternoons.

CUCUMBERS.

If the seeds of these are not already sown for winter and early spring fruiting, no time should be lost. A good form of Telegraph is still hard to beat. Rochford Market is a strong-growing and free-fruiting variety; it keeps well, a great thing in its favour for winter work. The season of these plants being to supply fruits for a long period of dull months, every care should be taken in making the beds and to see that the drainage is in order. Moderately-sized mounds of soil should be placed in position, consisting of good fibrous loam, leaf-mould, Mushroom bed manure, with a sprinkling of wood ashes and bone-meal. Do not make the soil too light at this season, as the plants will grow stronger in more loam than is generally used during the summer months, when a quick return is necessary. Sow two seeds in each mound of soil and remove the weakest later. Plants sown direct grow stronger than when sown in 3-inch pots. Give plenty of air when the weather is favourable to secure firm, short-jointed wood that will supply fruits from Christmas onwards.

AUTUMN-FRUITING CUCUMBERS.

These should be encouraged by having weak supplies of liquid manure given them. Top-dress the plants at short intervals with rich, light soil, covering over all the roots on each occasion. See that the soil is well warmed through before being used. Keep the growths thinly trained, and do not overcrop the plants unless they are shortly to be removed. Syringe and damp the house according to the weather, and maintain a night temperature of about 68°, 75° by day, closing at 80° with sun-heat, and allow the house to run up to 90°.

Impney Gardens, Droitwich.

F. JORDAN.

KITCHEN GARDEN.

SALADINGS.

MUSTARD and CRESS from this date must now be grown in boxes indoors. The heavy rains and lessened sunshine prevent the necessary rapid growth. A sowing should be made weekly to ensure a constant supply. See that the boxes are removed from drip, and if the seed has germinated in heat the boxes should be removed to cooler quarters. Radishes are still in request. These must now be sown in cold frames. Keep the frames shaded till the seedlings appear. Copious waterings will be required, so that the roots may be crisp. Lettuce sown about the middle of last month will now be ready for planting out. Choose a warm, sunny position, such as the bottom of a south wall. See that the plants are not put in too deeply, as at this date they are very liable to damp off. Slugs will, no doubt, be troublesome, and must be kept down. If not already sown, Lettuce for wintering in frames should be got in, and if sown at once will be the right length for transferring to frames. About the end of the month Cos varieties in the open may be tied up—not too tightly. There should be a sufficient quantity of these on the way to meet all demands till hard frost sets in.

FRENCH BEANS.

Make another sowing of these in pots to succeed those in frames. The pots should be three parts full, with ample drainage. They may be placed in cold frames till germination takes place. The lights should be placed on the frames, as the prevailing heavy rains would destroy the seeds, or, at least, retard germination. For this sowing Veitch's Forcing Favorite is a safe variety, and is a most reliable sort at any season. Broad Beans have been a splendid crop, and if any are required for pickling they should be secured now, choosing, of course, the finest pods.

GENERAL REMARKS.

Attention will now have to be given to the early winter digging and trenching, and it is well to be in time with the collecting of manure for the different plots. Good farmyard manure should now be turned into a large heap to allow time for its thorough preparation. Garden refuse of all kinds may be mixed along with the manure, or if much trenching is to be done this may be kept separate

for placing in the bottom of the trenches. If the refuse heap is known to be full of seeds of weeds, it should on no account be brought back to the garden, but be carted off the premises. Remove the stakes and clean the ground of the early Pea plots. The stakes should be stored in a dry place if possible. Ground for the planting of Cabbage for spring use should now be got ready, land that has been cleared of Potatoes or Onions being very suitable. Except levelling, Potato land will need no future preparation. If the plot cleared of Onions is very hard it may require loosening with the fork.

Hopetoun House Gardens, THOMAS HAY.
South Queensferry, N.B.

ORCHIDS.

DENDROBIUMS.

MANY of the semi-deciduous section, such as *D. nobile* and its varieties *D. wardianum*, *D. crassinode*, *D. findlayianum*, and many of the now numerous hybrids, among them *D. leechianum*, *D. splendidissimum grandiflora*, *D. Juno*, *D. Wiganiae*, *D. wiganianum*, *D. Ainsworthi*, *D. Curtisii*, *D. Cybele*, *D. Artemus*, *D. burfordense*, *D. Euterpe*, &c., are now approaching full development, and the treatment they have been receiving during the growing season will require changing. In the past we have generally taken them from the growing house and gradually hardened them till they have eventually been placed in an early vinery or Peach house or other very airy and dry structure. I find, however, we get our best results by not subjecting them to such a radical change. We do not take them now from the growing house, but we select those that have not yet finished growing and give them still a free supply of water. Those that are finished, or nearly so, are only watered when they become dry. More air is now admitted, and, generally speaking, the house is being changed gradually from a stove temperature to the intermediate Orchid house degree.

I certainly advise those that do not devote a house to Dendrobiums to take the finished plants from the growing house and stand or hang them in the intermediate structure, giving them the lightest position possible. If one can give the finished ones such a temperature, which is often impossible where large numbers are grown, they could be removed and the temperature maintained for those still growing, but my experience tells me that Dendrobes will grow well when it comes to this time of the year in a much more buoyant and cooler temperature than is needful during the spring and early summer, when the growths are young and soft.

It is essential that the change should be brought about gradually, and at no time would I advise a lower temperature than 60° at night.

A great mistake is often made in giving Dendrobiums their needful rest by withholding water to such a degree that the pseudo-bulbs shrivel. Nothing is more detrimental, and the ultimate result is flowers of inferior size and wanting in substance. Next year's growth is generally weak. Well-rooted plants will go for many days without water, yet it will be necessary for the grower to constantly observe his plants and watch for the first signs of shrivelling. If the plant is then at once thoroughly watered the plumpness of the new pseudo-bulbs will be restored in a few hours. This is likely to occur with anyone who is giving their plants an ideal rest, it being well to run as near as possible to the point that causes shrivelling without overstepping the mark. The blinds should not be lowered now till about 10 a.m. on the morning side, and those on the afternoon side should be raised about 3 p.m. to allow the morning and evening sun to help forward the ripening process.

As the season advances less shade will be required, and as the bulbs get more fully ripened less water will be required to maintain them in a plump state.

The whole secret of success in properly resting Dendrobes is to maintain the plants in a sound state, with as much sun as possible and with the least quantity of water; the roots will then keep in good health, and many more will be made to help sustain the plants through the flowering season. We find we can bring this about better by not subjecting them to such cool and airy conditions as we have done in the past.

W. P. BOUND.

THE KITCHEN GARDEN.

NOVEL POTATO CULTURE

I HAVE been reading your correspondent's article on production of new Potatoes from old tubers during the winter months with profound interest, and intend to try the experiment myself. Could you tell me

(1) If the earth sprinkled on the old Potatoes should cover them entirely? (2) If that earth should be perfectly dry or decidedly moist?

Cullompton.

W. TRACY.

I HAVE much pleasure in giving the following information in reply to your correspondent's two enquiries on the production of new Potatoes from old tubers: (1) If the old tubers are put in a dark place, such as our chalk caverns or a Mushroom house, they need only be partially covered with fine soil. Many people come to see them in winter, and it is interesting to see them growing. The old tubers, with their young ones, can be lifted up, examined, and replaced. It does not hurt them at all, as there is no leaf or root growth. If they are grown in a place where more or less light can reach them they should be covered, but not too deeply. We grew some in a frame very satisfactorily with a little heat, covering them with 2 inches or so of soil. In this case we had to finger them about to find the young Potatoes. If exposed to light there is a tendency, of course, to turn green. We have had the best results in total darkness, when with a taper or candle we can see exactly what to pick. (2) The earth need not be perfectly dry; it certainly should not be wet. We use the soil from under the potting bench, finely sifted, without any other preparation. We are quite satisfied with our success, and I believe there is a future before it.

GEORGE STANTON.

Park Place Gardens, Henley.

SEASONABLE NOTES ON CELERY.

THOUGH badly attacked by the Celery fly in the earlier part of the season, Celery generally is looking wonderfully well, and gives every promise of yielding first-rate returns. Much care and attention, however, must be exercised at this time of the year to ensure perfect blanching and keeping qualities, and especially so on land which is naturally of a stiff, stubborn nature. Fortunately Celery, providing plenty of farmyard manure is given to it, will thrive luxuriantly on almost any soil. Side growths and all split and deformed leaves should be removed before the work of proceeding to apply the earth. The roots should be thoroughly moistened by giving two or three drenchings of liquid manure, and it is well to bear in mind that Celery is a moisture-loving plant and can hardly be over-watered at the roots. Even though the weather may be showery there is seldom sufficient to benefit the roots. A good dressing of soot should be placed round each plant and about the growths and leaves also, and where sufficient hands are at command three pairs should always be used for the purpose—two for preparing and adding the soil, and the other for placing it securely round the plant. The work should be performed as much as possible in fine, dry weather, and one of the greatest mistakes is to add too much soil at the time, the consequence being the young growths become crippled and premature decay sets in.

Well-grown Celery requires at least four applications of soil to perfect it, and in the case of stiff, lumpy material care should be taken to pulverise this as much as possible. Six to eight weeks is necessary before it is really fit for the table, and the later in the season the longer time it will take. Keep a sharp look-out for any signs of the Celery maggot, and take means to destroy it as speedily as possible, as it often makes its appearance, as it did last year, twice during the season—spring and autumn. Soot should be constantly applied both over the foliage and on the surface of the soil, and when used in time it undoubtedly does much to ward off the attacks of the fly and slugs. As a stimulant for Celery it is unsurpassed.

That which is required for midwinter and spring supplies, and, of course, was the last put out in trenches, should receive every encouragement to induce it to make free growth. The earthing up of this should be deferred for at least another six weeks or two months. As is well known, it is harder and escapes injury from severe weather better when not too much blanched.



THE CELERY QUARTER IN LORD ALDENHAM'S GARDEN AT ELSTREE.

When required for exhibition the best and most promising sticks should be selected and brown paper bands about 6 inches in width placed round them, adding others of the same width about every seven or eight days until it is of sufficient height. Eight weeks should be allowed at this season. It will be well to examine these once or twice during the period to see that all is going well and that there are no decayed pieces in it. In dry weather give a thorough watering at the root every third day.

El-stree.

E. BECKETT.

NURSERY GARDENS.

MESSRS. WEBB & SONS, WORDSLEY, STOURBRIDGE.

THE trial seed-grounds of Messrs. Edward Webb and Sons are on high land at Kinner, near Stourbridge, an ideal spot for the purpose; the air is pure and the soil good. The total extent of ground cultivated here by Messrs. Webb is 1,500 acres. The culture of plants for seed is a most important work, and position and environment are points that need careful consideration, so that the stock of certain varieties may be kept healthy and true. Messrs. Webb's seed business is a very extensive one; in addition to the Kinner farms some 20,000 acres of land in different parts of the country are used by them for seed-growing purposes. The Kinner farms are for the production of stock seed, and it is there that new varieties are raised by cross-fertilisation and improved forms obtained by selection. A valuable work carried out there also is the cultivation, side by side, of Messrs. Webb's varieties of vegetable, flower, and farm seeds, with varieties from many other sources.

Thus it is possible to determine the relative value of their new productions, which is a very necessary thing to do. Unless such a method is practised it is impossible to appraise new sorts of flowers or vegetables, cereals or grasses, at their true value. We may think a certain Pea or Potato to be an excellent one and well worthy of being put upon the market, and, indeed, when seen by itself no one would have any but the highest praise for it, yet when seen side by side with others of proved worth it may possibly lose considerably by comparison. Thus it is not difficult to see how important a matter it is to grow new varieties along with old. This is what Messrs. Webb and Sons do, and if the new sort does not show a marked improvement in one or another direction, in quality, size, vigour of growth, or productiveness, then it is discarded. When such rigid selection is practised the result cannot be otherwise than beneficial, for by its means poor varieties are weeded out and a high standard is maintained. The varieties of vegetables and flowers are now innumerable; careful and rigid selection becomes of increased importance every year, and it is very satisfactory to see that Messrs. Webb so thoroughly realise this and carry it out.

In connexion with the trials there are at Kinner to-day many plots of different vegetables, flowers, cereals, and grasses growing side by side, the object of Messrs. Webb being to determine the best varieties of each kind. These trials include fifty-three of Wheat, thirty-seven of Barley, eighty-four of Oats, 158 of Peas, forty-eight of Beans, forty-two of Cabbage, fifty-six of Onions, sixty-three of Cauliflower and Broccoli, thirty-nine of Carrot, forty of Swedes and Turnips, fifty-four of Mangolds, and twenty-five of Lettuce. We might mention two new strains of cereals that were pointed out to us, viz., New Barley obtained by cross-fertilisation, the result being a very stiff-strawed variety, combining the productiveness of the one parent with the fine malting quality of the other. This will be offered to the public next year under the name of the New Binder Barley, a name peculiarly suitable on account of the erect character of this new variety. The other novelty is the White Horse Oat, which has been obtained

by selection. Undoubtedly it is a good stable Oat, and, while the length and strength of straw make it valuable in one way, the heavy yield and thin skin render it equally desirable in another. Two new Wheats and two new Peas were also pointed out to us. In the vegetable trial quarters, in addition to those kinds already mentioned some eighty different sorts of Potatoes were growing, and among them were several seedlings of great promise. The finest Beetroot we saw, and one that can be strongly recommended is Satisfaction. Of new Peas we noted Mainstay (late), Senator and Kaiser (maincrop varieties), all of sterling merit. Some sixteen other seedling Peas raised at Kinner, but as yet not fully tested, and therefore unnamed, were pointed out to us.

The flower seed trial-grounds made a brilliant picture; some 150 varieties of annuals were growing there, and most of them in bloom. The Nasturtiums made ribands of red and yellow and gold; the bed of Carnations, some 100 yards long, was a delightful feature: the Hollyhocks stood sentinel over masses of Dahlias, Candytuft, Larkspurs, &c., all of which combined to make a galaxy of colouring as perhaps only annuals at their best are capable of giving. We have never seen a finer selection of Nasturtiums than Messrs. Webb have, and among the many distinct and richly-coloured varieties three were particularly fine—King of Tom Thumbs, with brilliant scarlet flowers and dark green leaves; Tom Thumb Rose, with rosy red blooms; and Cloth of Gold, bearing a profusion of very bright yellow flowers, and with light green foliage. Candytuft was represented in several pleasing shades of colour, and the masses of white and purple Clarkias served to remind one of the value of these somewhat neglected garden flowers. The Carnations were layers from seedlings, the result of seed sown in 1902, and all had been carefully selected; the plants were vigorous and the colour of the flowers very bright and attractive. Mignonette, Godetias, Poppies, Lupins, Eschscholtzias, Alyssum, &c., added further variety of form and colouring to this veritable farm of flowers, and served to bring home to one the peculiar value as colour plants of annuals in the garden. Oxurya chrysanthemoides is a pretty and uncommon annual plant with yellow, white-edged Daisy-like flowers, that deserves to have attention drawn to it.

In the glass houses for the production of the seeds of tender plants we saw many excellent varieties of Messrs. Webb's Excelsior strain of Gloxinias and tuberous Begonias that included some very pretty crested forms. Our attention was drawn to a new red Plum-shaped Tomato called Coronation, which is a very heavy cropper. The premises at Wordsley have been recently added to by the erection of new storage and drying-rooms, and there is now a commodious and extensive block of buildings. At Saltney, Cheshire, Messrs. Webb and Sons have large chemical works, seven acres in extent, for the manufacture of artificial manures for both farm and garden crops.

E. GAYE, LOWESTOFT.

If plants grown on the East Coast have any advantages over those grown amid more congenial surroundings it is that they are as hardy as plants can be, and this may truthfully be said of those grown by Mr. Gaye at his nursery a mile or so from Lowestoft. The fresh sea breezes that in winter often attain the velocity of a gale blow uninterrupted from the North Sea across the flat country characteristic of the south-eastern counties, and the plants are exposed to a good deal of their force. It is safe to say then that, if they live and thrive at this Lowestoft nursery, they are pretty sure to do so in almost any garden in the kingdom. Plants that have been "coddled" in the nursery invariably prove unsatisfactory, if they do not fail altogether, when transplanted to a somewhat exposed position where they must brave the wind, sun, and cold. It is safe to say that many plants are annually lost from this cause alone. If you would make sure of having plants that are strangers to "coddling," that have braved the elements from their earliest days, you are certain to find them in Gaye's Lowestoft nursery.

Altogether some thirty acres are under cultivation. A special feature here is the culture of hedge plants. Mr. Gaye has large stocks of Myrobalan Plum, Privet, Quick, Laurel, Beech, &c. The first-mentioned makes an excellent hedge quickly. We saw one formed of plants only three years old, planted two years ago, that is now from 4 feet to 5 feet high. The plants were put in 9 inches apart in two rows. This makes a prettier hedge than the Privet, and is apparently almost, if not quite, as quick growing and hardy. Mr. Gaye speaks highly of the Silver Poplar, which he recommends as an effective plant for exposed positions. We saw numerous and very good plants of this from 3 feet to 6 feet high. The Spruce Fir, the Lombardy, Canadian, and Balsam Poplars, Willows, Larch, and Lilacs in variety are all grown in considerable quantities. Hyacinthus (Galtonia) candidans and Montbretias made the nursery bright, the former with their bells of creamy white, the latter with their numerous racemes of orange-red flowers that are produced in such profusion in almost any position and any soil. Mr. Gaye grows plants that are of proved garden value, and for which there is a good demand, hence one sees large quarters filled with Polyanthus, Primroses, Canterbury Bells, Violets, Wallflowers, Pansies, Pinks, Carnations, Roses, and many more, all of which are popular with the million. They are indispensable in every garden. In common with everything else in the nursery they have that hardy appearance which denotes vigour of constitution, a consideration that is all-important with most purchasers of plants. Fruit trees are chiefly represented by Currants, Gooseberries, and Raspberries, although Mr. Gaye supplies other sorts, such as Apples, Pears, and Plums. That the plants sent out by Mr. Gaye give satisfaction is evidenced by the rapid growth of his nursery, which, when established eleven years ago, employed only three men, whereas now it gives work to some forty altogether. Indirectly also this serves to show how great and real has been the increased love for plants and flowers among the people of this country.

CORRESPONDENCE.

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

PLANTING EVERGREENS IN SUMMER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I can hardly agree with "J.'s" contention in THE GARDEN of the 13th ult. that evergreens can be moved better in the middle of summer than at any other time. I grant they can be moved and live afterwards, even in the hottest summer, provided they are watered and shaded and all the rest of it, but these operations mean a lot of extra work for a very doubtful success. I wonder whether he has ever tried to move conifers in the summer; if so, I should like to know the result, as I have almost invariably found them die or set so unhealthy that they have been got rid of at once. The best time for planting evergreens is from the middle of September until the end of October, and next to that from the beginning of April to the middle or end of May, according to the rainfall and the direction of the wind. The essential conditions under which evergreens can best be moved are warmth of soil and humidity of atmosphere. The ground, being warm, induces fresh root action, and the moist air prevents evaporation, thus causing no demand upon the roots before they begin to push. Given these conditions for a fortnight there is no danger of a plant dying, as it will have become settled down in its fresh berth and be starting to make fresh roots. These conditions are found more generally in the early autumn than at any other time of the year, and therefore that is the best time for transplanting. In the spring we are liable to get a succession of cold, drying, easterly winds, accompanied by bright sunshine, which are very injurious to most vegetation, and especially to freshly-planted evergreens. If the plants to be moved are in a fit condition for transplanting, a

fortnight or so of mild, damp weather afterwards, with a suitable ground warmth, will be sufficient to ensure their living and thriving. The remarks on the preparation of plants are good, and cannot be too strongly impressed on intending planters. Any plant that is not in a permanent position must be moved periodically or it will become coarse-rooted, and either die outright or suffer badly when moved from the place it is growing in. The time that should elapse between each shift depends upon the plant itself, some things standing for three or four years without any injurious after effects, while others must be moved every year, or every other year at the outside. To cut round a plant, however, in October, and then to move it in the following July, is too soon, as the young roots have not had time to develop properly, and the

ground is warm and the atmosphere is moist, which conditions, taking an average of years, are found more during the latter part of September and through October than at any other time of the year.

Bagshot, Surrey.

J. CLARK.

LUPINUS ARBOREUS SNOW QUEEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I note your correspondent in your issue of the 20th ult. thinks well of this plant, and very kindly sends you a photograph. When I contemplated placing this plant on the market I had a photograph taken of a bed—or part of it—which was over 100 yards in length; the bushes were 3 feet to 4 feet high, entirely covered with flowers.

at which these trees were first introduced into England is referred to, viz., about the middle of the seventeenth century, the following note left by my great-grandfather, Sir Wm. Wolseley, in 1802 may be of interest:—

"Feb. 9th, 1802.—The venerable Cedar at Wolseley was blown down on the 21st of January, 1802, between two and three o'clock in the afternoon, a day famous in the era of Time whereon Lewis, the 16th King of France, was beheaded by his own subjects. On this day also there was an occultation of the Planet Jupiter with the Moon; from this circumstance and from the influence they have on the weather, the most violent hurricane that has been known in England since the year 1703, was such as not only to blow down this famous Cedar, but also tore up by the roots seven large Oak



LUPINUS ARBOREUS SNOW QUEEN IN MR. LADHAMS' NURSERY.

plant suffers afterwards, these young fibres being broken or bruised, as they inevitably are during transplanting. Most trees and shrubs should be left for at least twelve months after being prepared, while a few are all the better for being left two years.

"J." in his note seems to be mixing evergreens with deciduous subjects when he speaks of the second growth in summer. I have never noticed a regular second growth on evergreens, the same that one sees on an Oak for instance, though sometimes a Holly or a Yew or Laurels will make a second growth during August or September, which, however, rarely ripens sufficiently to withstand hard frost. The great point in transplanting evergreens, as I have said before, is to do it when

It was at that time like a deep snowdrift, and the scent was wafted into the high road for half a mile. So striking was this big lot that the public came three miles to see it. We, of course, never again had such a fine show, although individual plants have been if anything finer. I had a lot of very indistinct and curious forms before selecting this one.

Shirley Nurseries, Southampton.

B. LADHAMS.

THE CEDARS OF LEBANON.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having read in THE GARDEN of the 20th ult. the interesting article on the Cedars of Lebanon, and noticing that the generally accepted date

Trees in Wolseley Park the same day. This Cedar was of a considerable age and size, and contained even limbs of very large timber, and was all perfectly sound. The butt of the tree five yards and a half 12 inches in circumference, three great branches two yards 24 inches in circumference, several others one yard and upwards, and its height sixty-three feet. Such is the true statement of this stupendous tree, nothing can compensate for its loss!!! The family tradition is that Sir Wm. Wolseley, who was drowned in his chariot in the mill stream at Longdon, brought the Cedar cone from Mount Lebanon, having set out from Aleppo on a journey to Jerusalem in company with eleven other English gentlemen in 1697, whose travels are described in print. The said cones Sir Wm. gathered himself

on the top of Mount Lebanon, and he had them sown in the stone walled Wolseley garden; that the common weeder in the garden, not knowing of there being anything of the sort planted there, wed them nearly all up, but accidentally left one, and that this was the *very tree* so left that attained to such a magnificent growth.—Signed, WM. WOLSELEY."

There are three fine Cedars now on the lawn at Wolseley, which, until quite recently, I have always believed were planted at the time referred to in the above note, which, however, disproves this theory. Two of these trees are at least 50 feet in height, the butt about 13 feet in circumference, with fine spreading branches, and do not seem to have perceptibly increased in size during nearly fifty years that I can remember them. I now presume that these were planted to replace the one blown down referred to above, which would make them about 100 years old only. If so, their growth during the first half of their existence must have been very much greater in proportion to the last half.

Wolseley, Stafford.

C. M. WOLSELEY.

THE FOAM FLOWER AND SPIRÆA LINDLEYANA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice in your issue of the 6th ult. that two correspondents write about *Tiarella cordifolia* and *Spiræa lindleyana* as if they were difficult plants to grow. My experience is that they are both of the easiest cultivation. The *Tiarella* can be increased by runners or division of the root, and grows like a weed in my Buckinghamshire garden. The *Spiræa* grows both there and in my Yorkshire garden most luxuriantly; it is now at the latter place, 550 feet above the sea, covered with its plumes of white blossom. I have given offshoots to many friends, and have had the shrub here for more than twenty-five years.

Yorkshire.

"HEDGERLEY."

EVERLASTING PEA MOONLIGHT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to the note of "R. D." in THE GARDEN of the 20th ult. I am pleased to give all the information I can respecting this hybrid. I received a packet of twelve seeds of *L. splendens* (Californian Pea) from a foreign house of high repute. All germinated, nine being *L. splendens*, two *L. sylvestris platyphyllus*, of a fine form, but the usual magenta colour; the other is the white variety, to which I have given the name Moonlight. There was no apparent difference in these seeds. Presumably Moonlight is *L. s. p. albus* × *splendens*, accidentally the hybrid keeping the colour and form of the former, but, as is so often the case after introduction of fresh blood, all parts are more finely developed. I have Hobbies' variety growing beside mine, but forbear a comparison.

Gresford.

P. H. MULES.

HARDY CLIMBERS FOR ARGYLLSHIRE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The best of all is *Escallonia macrantha*, but all *Escallonias* do well. I have a grand *E. langleyensis*, now two years old and growing fast, on a south-east wall. Nothing grows better than white Jasmine; this and a *Cotoneaster buxifolia* are 10 feet or more high in the same time, and an *Exogonum Purga*, planted out in May, has grown at the rate of some 3 inches a day, and is flowering well. You do not mention the Brooms, but they flourish better than anything except Fuchsias. Of the Heaths, *E. arborea*, *E. lusitanica*, *E. mediterranea*, and, indeed, all this tribe do very well, though we have not yet had a hard frost to try the first-named. By far the best Rose for a wall is a yellow Banksian. I planted one at Ormsary in April, 1895, which was well over the roof when I left the place in 1901. If "X." has a garden at all sheltered from our winter gales, let him plant, next April, a few Himalayan *Rhododendrons*, and first of all let him go to Stonefield to see the beautiful

specimens there, now some forty or fifty years old. I have not found the Fire Thorn or *Wistaria* do well.

H. R. BRUXNER.

Achaglachgach, Tarbert, Loch Fyne.

DESTROYING WASP NESTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I should be very grateful if you or any of your readers would tell me the best way to destroy wasp nests. I am plagued with the pests. J.

[The first and most important attack one can bring to bear on wasps is unmistakably at the nest, but in a district where fruits are widely and universally cultivated in the garden and orchard of the cottage, mansion, and farm their increase is certainly encouraged. At some local flower shows prizes are given, and very wisely too, for the largest number of queen wasps, and it would be well if private individuals could take up the matter in the same way. Where it is carried out, much less trouble is caused from their visits in late summer, or from the early Plum season until all Pears and Apples are stored. Early summer fruits, fortunately, are exempt from their interference, and there are districts and gardens where no trouble is known from wasp attacks. For destroying the nests, nothing is so quickly effective or so simple as cyanide of potassium. Needless to say, this a deadly poison, and should be used with caution, but with ordinary care no one need have any fear. The great advantage of this is that it can be applied much more effectively during the day, and thus the old-fashioned or tedious ceremony of burning them out at night is altogether dispensed with. Very strong nests, however, require sometimes a second application of the liquid; the dead and dying insects apparently, when so numerous, stifle down the fumes or vapour, which to them is so destructive. It is useless to visit a nest, apply a dose of cyanide, and then leave it, hoping that its destruction is assured, even if all the wasps on the wing pass in and remain in the nest. To those who have watched their progress, it is well known that those in the maggot stage hatch and re-establish the nest in a surprisingly short time. To obviate this, one must visit the nest with a spade only a few hours after the solution is applied, dig it out and beat it into a paste. Sometimes, when to outward appearance all is quiet, a quantity of winged and living wasps are disturbed in the course of digging out the nest. A pot of water quickly thrown on them greatly facilitates their end. The cyanide supplied in ½-lb. or 1-lb bottles is in lumps, which is easily dissolved in warm water, and it is better to mix only as much as can be used at once, because the loss by evaporation is such that the solution is rendered almost valueless in a day or two. It should, both in a dry and liquid state, be carefully sealed against air. Two or three lumps, according to size, suffice for a pint of water, and a tablespoonful poured well into the entrance soon commits havoc among the inmates and those passing in. Nests are most easily found when the sun shines, because wasps are then traced for some distance on the wing, and the direction of their nests can be often ascertained by noting the course taken on leaving the fruit trees. Bottles filled with sugar and beer, or honey and water, attract and destroy a quantity of wasps and the large blue-bottle flies, which, when in quantity, are almost equally as destructive. This perhaps is the only means of trapping the flies in question, and it is surprising the quantity collected in large sweet bottles when partly filled with a tempting mixture.

PLANTS THAT NEED CAREFUL HANDLING.

THE following interesting notes by Mr. J. H. Maiden, Government Botanist, and Director of the Botanic Gardens, Sydney, were contributed to the Therapeutical Society:

Rather more than twelve months ago I had the misfortune to contract a severe attack of eczema through coming into contact with a growing plant of *Rhus radicans* (Toxicodendron) in these

gardens. Discussing the matter with the physician to whom I owed speedy recovery, I found that but little was known about plants which induce this distressing complaint (of which, of course, many kinds are known to physicians).

Careful search on my part shows that the matter has probably escaped the attention of botanists. I enumerate the eczema-inducing plants known to me in botanical sequence, but the list is so scanty that no conclusion can be come to as the result of scanning this list, except that at present the genus *Rhus* has unenviable notoriety. Perhaps the publication of this list may draw attention to the subject, and we may thus obtain the data that we at present lack.

I have not referred to mere urticating or stinging plants, such as the Nettle. If we know but little as to the plants which cause irritation, we know less of the active principles concerned. If we can make a comprehensive list of well-authenticated plants, the active principles will be ascertained, I feel sure, without delay.

RUTACEÆ.

(1) *Phebalium argenteum*, Sm.—This has been called the "Western Australian Blister Plant," and Dr. Alex. Morrison* has shown that it blisters the human skin if handled. It has also been suspected of poisoning stock, though no details of this are available. It probably owes its acidity to an essential oil, as do so many plants of the natural order to which it belongs.

MELIACEÆ.

(2) *Dysoxylon Richii*, C. DC. (*D. alliaceum*, seem.), native name Mastanea, is found in several Polynesian islands. Dr. Funk of Apia Samoa, informs me that the wood "causes sickness," which I understand to be in the nature of skin irritation. The sap or sawdust causes a kind of eczema on the hands, also eye inflammation, and a burning feeling in the throat.

(3) *Dysoxylon Muelleri*, Benth. "Red Bean."—This well-known furniture wood of New South Wales has been accused as follows: Some cabinet-makers report that after working at it for "four or five days they begin to suffer from a virulent form of influenza, accompanied by violent fits of vomiting and bleeding at the nose, while if they cut themselves in handling the timber blood poisoning almost inevitably ensues. Remarkably enough, the more seasoned the wood is the worse it becomes."

It appears to me that the language of exaggeration has been here employed. So far as I can glean, the wood, and particularly the sawdust, are exceedingly irritating to some people, and it has induced severe eczema and also irritation of the mucous membrane.

(To be continued.)

HYBRID MONTBRETIAS FROM BELGROVE.

MR. GUMBLETON sends from Belgrove, Queenstown, Ireland, flowers of a series of beautiful hybrid *Montbretias*, descriptions of which are as follows:

Montbretia hybrida M. Jacquæau.—A charming flower, just over 1 inch across, the outside of the florets flushed with a warm brownish crimson, but within deep yellow, with the same crimson mingling with the yellow on the upper half. The buds are of the same colouring as the outer surface of the flowers.

M. h. Fantaisie.—This is not unlike M. Jacquæau, but the flower has a greater brightness. It is about the same size, and very pretty in shape and colouring.

M. h. Messidor.—In this the flowers are conspicuously close together on the stem, not more than one-sixth of an inch separating them. The colouring is rich, the buds purplish crimson, and the back of the florets in the expanded flowers of a similar shade, which also suffuses much of the inner surface; but there is a ring of crimson spots

* *Chemist and Druggist*, July 8, 1899, page 63.

at the base, surrounded with deep orange. This gives great distinctness to the hybrid.

M. h. Flamboyant.—The name is suggestive, and it is, happily, not misleading. It is a brilliant flower, and deep orange both in the bud and expanded stage. One of the most delightful of the whole series.

M. h. George Davidson.—When the flower of this hybrid is wide open it is nearly 1½ inches across, and a clear and bright yellow, with an orange suffusion on the outer surface of the florets. The buds are orange, too, and the stem quite a bright green, which brings out the rich colouring of the flower. It is a most valuable hybrid.

M. h. Germania.—This is quite different. It is the most intense in colour of all, the flowers deep red.

M. h. Europa.—A beautiful hybrid. The flowers crowd together at the apex of the spike, and individually they measure about 1½ inches across, the predominant colour deep red, but this is relieved by the yellow anthers. Within the flower at the base is a little pool of pleasant colouring. At the base of each segment is a yellow patch, marked with two rectangular dabs of crimson, and the lower half of the segments shines with a bluish satiny sheen. The whole flower seems full of colour.

M. h. Gloire de Selle St. Cloud.—A handsome and striking flower. We measured the largest, and it was 2½ inches across, the colour a clear and beautiful soft yellow, with a blotch of crimson at the base. The buds and half-expanded flowers have more of an orange colouring. A garden flower of the greatest value and beauty.

M. h. Grenade (Lem.).—This is not so striking as some of the others, but it is interesting. The flowers are almost double, and this increase in the number of segments imparts a certain lumpiness which is not pretty. The colour is yellow, and bright red on the upper half of the florets, and the exterior suffused with the same shade.

M. h. Globe d'Or.—We must make the same complaint about this still more double hybrid. The outer segments of the rosette-like flowers are quite half an inch across, but the inside ones are narrower. The tube is short, and the hybrid is evidently very free, but it is not one of the most effective for the garden.

M. h. Transcendant.—A bright flower, with its yellow colouring and warm reddish suffusion; the buds are dark red. It is a very handsome hybrid.

M. h. Tête Couronné.—A noble hybrid—magnificent is not too strong an expression. The flower is 2½ inches across, each floret over half an inch across, and the colouring is remarkable. The predominant shade may be described as old gold, which suffuses almost the whole flower, but just below the lower half this gives way to velvety crimson, then this old gold colouring again, which leads to a black spot at the entrance to the tube. The exterior is simply this lovely golden shade. A hybrid to make note of by all who are interested in Montbretias.

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.

APPLE LADY SUDELEY.

I am sending for your table specimens of the early dessert Apple Lady Sudeley. For use in the middle of August I know of nothing better. It is of

excellent flavour and showy. Here in Norfolk it does remarkably well either on the Paradise or Crab stock. This variety deserves a more extended culture on account of its free-bearing qualities. One often wonders why so many of the old and, in some instances, almost worthless varieties are retained when for a very trifling cost far better results may be realised.—T. B. FIELD.

[An excellent early Apple, bright in appearance and very juicy.—Ed.]

FLOWERS FROM EXETER.

Messrs. R. Veitch and Sons send several interesting plants, one of which we hope to illustrate, namely, *Pentstemon Bridgesi*, a graceful plant, pink in colour, slender, the flowers lining the stems. The white *Gentiana asclepiadea alba* is interesting, the flowers pure white, but otherwise similar to those of the parent. *Erigeron ciliata* is a tall, strong growing kind, very pretty, white, with yellow centre, a charming little Daisy-like flower. *Rudbeckia hybrida superba*, a large, handsome flower, lilac-mauve in colour, a clear and charming shade; *Campanula cordifolia*, white; *Lepachys pulcherrima hybrida*, yellow; the blue-flowered *Nierembergia frutescens*; *Potentilla Fredreichsenii*, *Stactea sinensis*, white; *Eryngium creticum*, deep blue, not unlike *E. planum*; and *Dianthus aridus*, a clear primrose yellow flower, very pretty with its soft colouring.

SOCIETIES.

LEITH HORTICULTURAL SOCIETY.

THE annual show of the above society was held at Hawkhill, Leith, on the 19th and 20th ult. The entries were hardly equal in number to those of last year, but, with the exception of cut flowers, were of as high quality. The stormy weather prevailing in advance of the show affected the cut flowers largely. In the horticultural department there were 1,015 entries, and in some classes the competition was very keen. The show was opened by Mr. Rufus Fleming, United States Consul, Edinburgh. In the gardeners' classes a number of the best gardeners in the district competed, and Mr. J. Alexander, Ashbrook; Mr. J. Fraser, Kiltravock; Mr. J. C. Brown, Waterloo Place; Mr. P. M'Lanchlan, Grace-mountain; and Mr. Alex. Dyker, Seagrove House, were the most successful with pot plants. Cut flowers were well shown by Mr. W. Robertson, Pilrig House; Mr. Seath, Don-iristie; Mr. T. C. Rodgers, Mr. Dyker, Mr. Héert, Mr. Murrayfield, and others. In the classes for dark Grapes Mr. J. Fraser was first, Mr. J. Alexander taking a similar place with light Grapes. Mr. J. Alexander was first for a collection of vegetables, Mr. Dyker occupying the second place. The special section was a good one, Mr. P. M'Lanchlan and Mr. J. Alexander being respectively first and second for the best arranged table of plants, open to gardeners. Messrs. D. and W. Croll had the best twenty-four Rose blooms, Mr. Hugh Dickson the best twenty-four Cactus Dahlias, Mr. John Downie the best vases of Carnations, and Mr. J. Phillips was first for a table of miscellaneous plants. The amateurs showed remarkably well in the classes confined to themselves, and a few distinguished themselves in the open ones.

ABERDEEN ROYAL HORTICULTURAL SOCIETY.

THE annual three days' show of this society was held in the Duthie Park, Aberdeen, on the 18th, 19th, and 20th ult., the entries numbering upwards of 1,700, a slight decrease upon those of last year. There was no falling off of quality, and in several departments a number of the exhibits showed a considerable advance. The better weather conditions of the season rendered the cut flower section unusually fine. Pot plants were weaker in point of numbers, but the exhibits were in many cases of exceptional excellence. Fruit was much better than last year, and vegetables were a remarkably equal and meritorious class. A noticeable feature in the classes for professional gardeners was that for a table of Begonias, Palms, and Ferns arranged for effect, Begonias to be the leading feature. The first prize was won by Mr. H. Skene, Garthdee House, with a table tastefully arranged and remarkable for the high quality of the Begonias. Mr. A. Grigor, Fairfield, made a good second. The other leading exhibitors in the classes for pot plants were Mr. W. Scorgie, Springhill; Mr. A. Duncan, Albyn Place; Mr. A. Grigor, Fairfield; and Mr. J. M. Simpson, Varvill Bank. In the cut flower classes the prizes were widely distributed, and space will not permit of full detail. Mr. J. Anderson, Mealmarket Street, had the first prize for twenty-four Rose blooms, Mr. M'Lennan, Fetteresso Castle, being first for twelve blooms. Florist's flowers were, as a rule, excellent, and the prizes well competed for. Sweet Peas were also well shown, Mr. Grigor taking the first prize. Bouquets and sprays were generally in exquisite taste, Mrs. Strachan, Mr. Grigor, and Mr. A. Douglas being the most successful in these classes. Mrs. Strachan had the best basket of flowers. In the fruit classes Mr. A. Howie, Drumtochty, had the first prize for a collection of fruit and for a collection of hardy fruit. Mr. Petrie, Crathes Castle, was the most successful competitor with Grapes. The vegetables were very fine, the prize for the collection being won by Mr. F. Kinnaird, Broomhill Farm, with a splendid lot. Mr. J. Yule, Faemewell, was first

for a basket of salads. The classes for nurserymen and florists drew out some splendid exhibits, notable being the wreaths, bouquets, and sprays, Messrs. Knowles and Sams carrying off the leading prizes. Mr. W. A. Dustan won with Cactus Dahlias, and Messrs. D. and W. Croll were awarded the first prizes for thirty-six Roses and for twenty-four Tea Roses. Amateurs showed capital in their respective classes. The non-competitive exhibits were, as usual at this show, a great attraction. Of special merit were the herbaceous plants, Roses, floral designs, and Sweet Peas from Messrs. Cocker and Son, Aberdeen; and the Liliacs and other pot plants, cut flowers, and floral designs from Messrs. Ben Reid and Co., Limited; the fine display of Dahlias and other flowers of Messrs. Dobbie and Co. of Rothsay; Mr. W. A. Dustan's Roses; and Messrs. W. Smith and Sons' exhibit of flower designs, pot plants, and cut flowers. Mr. J. B. Rennet, the secretary, and his assistants had made excellent arrangements, and the takings at the gate amounted for the three days to £255, an increase of £37 over those of last year.

PRUDHOE JUBILEE EXHIBITION.

THE fiftieth annual show of the Prudhoe and West Wylam Floral and Horticultural Society was held on Saturday, the 20th ult. This being the Jubilee year of the society special interest has been paid to the prize list, the list of specials this year being as follows: The Tradesmen's Jubilee Challenge Cup, the Society's Silver Jubilee Cup, the Laing Silver Jubilee Cup, all offered in the open class. The entries in classes for greenhouse and stove plants were more numerous than in previous years. Mr. T. Suffield of Darlington made his first appearance at this show, and in this class he was very successful; the handsome Silver Challenge Cup, Gold Medal, and £6 in cash were taken by him. Other principal prize-takers in this class were: J. Judson, Shotley Bridge; W. Anderson, Farnley Grange; J. Ellison and J. Harris of Cramlington; J. Campbell, West Wylam; J. Dixon, Addison, &c.

OPEN CLASS.—CUT BLOOMS.

The Society's Silver Jubilee Cup for twelve Dahlias, eight dissimilar: First, R. Teasdale, Prudhoe; second, J. Arkless, Gateshead; third, T. Battensby, Blyadon.

Six show Dahlias: First, J. Arkless, Gateshead; second, T. Battensby, Blyadon; third, Messrs. Harkness and Sons, Bedale, Yorks.

Six tipped or fancy Dahlias: First, J. Arkless, Gateshead; second, Messrs. Harkness and Sons, Bedale, Yorks; third, T. Battensby, Blyadon.

Twelve Cactus Dahlias: First, A. Urwin, Corbridge; second, Messrs. Harkness and Sons, Bedale, Yorks; third, G. Welsh.

Twelve Pompon Dahlias: First, A. Urwin, Corbridge; second, J. Arkless; third, J. Marshall.

Six bunches of Pompons: First, A. Urwin, Corbridge; second, Miss Burns, Styford.

Twelve single Dahlias: First, A. Urwin, Corbridge; second, J. Arkless, Gateshead; third, J. Gardner, Whickham.

The Laing Silver Jubilee Cup for twenty-four Roses: First, Messrs. Harkness and Sons, Bedale, Yorks; second, J. Gardner, Whickham; third, E. Taylor, Whickham.

Twelve Roses, eight dissimilar: First, Messrs. Harkness and Sons, Bedale, Yorks; second, J. Arkless, Gateshead; third, A. Urwin, Corbridge.

Six Tea Roses: First, Messrs. Harkness and Sons, Bedale, Yorks; second, E. Taylor, Whickham; third, G. Welsh.

TABLE DECORATIONS.

Basket of cut flowers: First, T. Battensby, Blyadon; second, W. Telford, West Wylam.

Epergne: First, T. Battensby.

Hand bouquet: First, T. Battensby; second, W. Telford.

Bridal bouquet: First, T. Battensby, Blyadon; second, W. Telford, West Wylam.

Lady's spray: First, W. Telford, West Wylam; second, T. Battensby, Blyadon.

Three buttonholes: First, W. Telford, West Wylam; second, T. Battensby, Blyadon.

Herbaceous flowers: First, Messrs. Harkness and Sons, Bedale, Yorks; second, Thomas Battensby, Blyadon.

Twelve spikes Gladioli: First, A. Urwin, Corbridge; second, Messrs. Harkness and Sons, Bedale, Yorks.

Six vases of Sweet Peas: First, W. Anderson; second, Miss Burns, Styford.

A special feature of the show was a beautiful stand of Orchids sent by N. C. Cookson, Esq., of Oakwood Hall, Wylam.

Messrs. W. Fell and Co., Hexham, had also a stand of Sweet Peas, herbaceous plants, &c. Prudhoe show has a reputation for vegetables second to none in the kingdom, and exhibits in this class were enormous.

READING GARDENERS' ASSOCIATION.

VISIT TO TWO FAMOUS GARDENS.

THE members of the above society have recently held two most enjoyable outings. The first was to Tynley Hall, Winchfield, by kind permission of Mr. and Mrs. Lionel Phillips. The party, numbering forty, journeyed from Reading by brakes, and a most delightful drive was experienced. On arrival the excursionists were received by Mr. Foster, the head gardener, and at once proceeded to the vegetable quarters, where good crops were the rule. Having been joined by the president (Mr. Leonard Sutton), the party made a move to the park, where luncheon was provided. After lunch the members inspected the glass houses, twenty in all, the flower gardens, the pleasure grounds, Lily ponds, and the Italian garden. This was a most delightful spot, the beds filled with standard Heliotropes, Begonias, Ivy-leaved Geraniums, and Fuchsias provided a sight not easily forgotten. The fruit trees in pots also claimed special attention; these had been grown under glass and then placed out of doors under netting to colour. The trees were carrying some excellent specimens. A unique room in the establishment was the seed-room. This contained a handsome suite

of drawers, each having a number. In the centre of the set was a large framed slate having numbers corresponding with those on the drawers, and a vacant space was left after each number to give the sort of seed contained in the drawers. The buildings connected with the garden have been erected on the most approved style and regardless of expense. Needless to say the vote of thanks proposed by the president to Mr. and Mrs. Phillips for their kindness was unanimously carried.

The second was to Wokefeld Park, the residence of Mr. and Mrs. Alfred Palmer, and this had been looked forward to with the greatest of interest not only from a horticultural point of view, but from the fact that Mr. J. Woodford, so well known in horticultural circles in the district, and at one time honorary secretary of the association, is head gardener here. Between seventy and eighty members took part in the outing, and on reaching Wokefeld were met by Mr. Alfred Palmer and Mr. Woodford, who conducted the party to the terrace garden, where the beds were gay with Cannas, Abutilons, Begonias, Fuchsias, and a splendid variety of Heliotrope, which, although growing in a rampant condition, was flowering profusely. The greenhouses were then visited. Special mention must be made of one containing zonal Pelargoniums, Lilioms, &c., which in combination gave a wonderful bright effect. The corridor also calls for comment on account of the beautiful appearance of the various creepers, such as Tacsonias, Allamandas, Bougainvilles, &c. Streptocarpuses were doing well, the whites being of large size and superb form. The Tomato house contained some excellent crops of Sutton's Princess of Wales and Up-to-Date. Then came the vinerias, and particular attention was created in these, as Mr. Woodford is well known amongst the members as a great advocate in growing Grapes in small borders. The whole proved an object-lesson as to his theory, for the Vines were in the healthiest condition, the bunches of fruit were of large size, and the berries beautifully coloured. In one border 3 feet wide one could see rods carrying eight exhibition bunches to the rod. The varieties chiefly grown were Foster's Seedling, Madresfield Court, and Lady Downe's. Peaches were also excellent. Space will not permit to give in detail the various crops out of doors, but there is every prospect that the fruit crops this year will be exceptionally good. Great credit is due to Mr. Woodford and to his able foreman (Mr. Blake) in the transforming of this garden in such a short space of time. Mr. and Mrs. Palmer not only added to the enjoyment of the outing by their presence, but they kindly provided tea, which was much appreciated. The feelings of the members were suitably voiced by Mr. Arthur W. Sutton in proposing a most hearty vote of thanks to Mr. and Mrs. Palmer for their kindness.

DUMFRIESHIRE AND GALLOWAY.

BUT for the unsatisfactory attendance of the public the two days' show of the Dumfriesshire and Galloway Horticultural Society, which was opened by the Countess of Cassilis in Cresswell Park, Dumfries, on the 26th ult., would have been most successful. The show itself was the most extensive ever held in Dumfries, and the competition in many of the classes was very keen. The tables of plants, of which there were three, caused much interest, and the prizes were awarded as follows: First (the Dumfries Burch Cup, with £5), Messrs. James Service and Sons, Maxwelltown, Dumfries; second, Mr. J. M. Stewart, Mollance; third, Mr. J. Houston, Crichton Royal Institution. The tables were very tasteful, and there was little to choose between the first and second. The contest for the first prize for a circular group lay between Mr. W. Muir (Summerville) and Mr. C. McIver (Lincluden), the prize going to the former, though, here again, the contest was a close one. Seven tables were arranged for dinner table decorations, the first prize going to Miss Philford, Netherwood Bank, for a tasteful arrangement of Montbretias with Asparagus. Miss L. Rutherford was second with a pretty table, Miss Service being third. Roses were good considering the character of the weather recently. Messrs. Palmer and Son, Limited, Annan, being first for twenty-four and Mr. K. Mackenzie first for eighteen Teas. Herbaceous flowers were well shown, Messrs. T. Kennedy and Co., Dumfries, being first and Messrs. Middleton and Son second and third for twenty-four bunches. Sweet Peas were excellent throughout the show, though hardly so fine in colour as last year. Florists' work in the shape of baskets, bouquets, &c., was generally superior to that shown last year, the leading prizes going to Mr. J. Kerr (Dumfries), Mr. W. Byers (Dumfries), Mr. J. Henderson (Elmbank), W. Middleton and Son, and Miss L. Rutherford. In the gardeners' classes the pot plants as a whole formed the weakest feature of the show, but Mr. J. M. Stewart, Mollance, who carried off most of the first prizes, had some good specimens, and Mr. McIver fine Yalotas.

In cut flowers the competition was unusually great, and many stands were of high quality. Some amateurs competed successfully against gardeners in certain classes, the most successful gardeners being Mr. K. Mackenzie, Mr. W. Ross, Mr. J. M. Stewart, Mr. J. Duff, Mr. R. A. Grigor, Mr. H. Young, and Mr. J. Henderson. The fruit classes were well contested, Grapes being well shown, though some bunches were not sufficiently ripe.

Mr. J. M. Stewart was first for the best collection of fruit, Mr. J. Duff making a good second. Mr. J. Henderson won with Black Hamburg Grapes; Mr. W. Thomson, Cally, with black Grapes, Hamburg excluded; Mr. J. Duff, Threave, with Muscats; Mr. J. M. Stewart with white Grapes, Muscat excluded; Mr. R. A. Grigor for Grapes with best bloom; and Mr. J. M. Stewart for those with best flavour. Mr. W. Currie, Drumclugh, had the best Peaches, Mr. C. McIver the best Melons, and Mr. J. M. Stewart led with Plums, dessert Apples, cooking Apples, and dessert Pears.

Vegetables were, as a rule, exceedingly good, and the competition in many classes large.

Mention must be made of the non-competitive exhibits. A number of fine Cockscombs were staged by Mr. W. McGuffog, gardener to the Countess of Selkirk, Balmac.

Messrs. Dobbie and Co., Rothessay, had a large stand of cut flowers of high quality, and staged in a most attractive manner. Messrs. James Service and Sons, Messrs. T. Kennedy and Co., Mr. James Kennedy, Messrs. Fotheringham and King, Dumfries, and Messrs. Little and Ballantyne, Carlisle, had fine stands of cut flowers and plants. Messrs. T. Smith and Sons, Stranraer, and Messrs. Palmer and Son, Limited, Annan, showed Roses.

REIGATE, REDHILL, AND DISTRICT GARDENERS' SOCIETY.

THIS society held its annual outing on the 10th ult., the place selected being Messrs. Sutton and Sons, Reading. About eighty members availed themselves of the opportunity of looking over the world-famous seed establishment. After arriving at Reading, about 2 p.m., they were met by Messrs. Cox and Dean on behalf of Messrs. Sutton, who, unfortunately, were unable to be present that afternoon. The party was conducted to the trial-grounds and glass departments, after which the whole party was entertained to tea by the firm.

ABERDARE FLOWER SHOW.

ON the 25th ult. a really good show from every point of view, and exceeding in importance anything that has previously been held by the society, took place in the Public Park, Aberdare. The groups of miscellaneous plants, ornamental foliage plants, dinner-table plants, exotic Ferns, Roses, Dahlias, Sweet Peas, fruits (especially those of Grapes), and, not the least, vegetables of all kinds were particularly of a high order of merit. Situated as this thriving town is, in the very midst of one of the most extensive and important coal districts, a show of such all-round excellence as this reflects great credit upon its promoters, supporters, and especially upon the persevering secretary, Mr. A. E. Jones.

PLANTS.

Ornamental foliage plants were splendidly shown. In an open class for four specimens Messrs. Cypher and Sons of Cheltenham took a decided lead; Mr. Garrish, gardener to Sir W. J. Lewis, the Hardy, Aberdare, was second, and Mr. Carpenter, gardener to W. J. Buckley, Esq., Penyfar, Llanelly, was placed third. In another class Mr. Carpenter was placed first with a good Kentia hemoreana, Latania borbonica, Cycas revoluta, and Croton angustifolium, the second place being taken by Mr. Reed, gardener to F. M. Mander, Esq., Aberdare.

Ferns were beautifully grown, and for six exotic varieties Mr. Lawrence, gardener to W. T. Rees, Esq., Maesyflyn, secured first honours, the second place being taken by Mr. Edwards, gardener to R. J. Rhys, Esq., Plasnewydd, Aberdare. For six dinner-table plants Mr. Collier, gardener to Dr. J. Iatham Thompson, The Elms, Cardiff, who had highly coloured Crotons and Dracaenas, with Aralias, Pandaus, &c., was first, Mr. Carpenter being second.

GROUPS.

These were undoubtedly the most beautiful feature of the show, and attracted much notice. A class for one in a space of 80 square feet attracted four exhibitors, who arranged their plants with great taste. Especially good, as might be expected, was the leading one from Messrs. Cypher and Sons, who employed very choice, well-cultivated plants, Mr. Carpenter taking the second place. A group in 40 square feet, open only to private gardeners and amateurs, was also a good class, and here Mr. Carpenter was placed first, followed by Mr. Edwards.

Cut flowers, Roses especially when the season of the year is taken into account, were remarkably good, being highly coloured and fresh, but, of course, not so large as they are usually seen earlier in the year. In a class for twelve varieties, three blooms of each, composed of six Hybrid Perpetuals and six Hybrid Teas, Mr. Stephen Treseeder, The Nurseries, Cardiff, was first. Mr. Crossling, The Nurseries, Penarth, was a good second, and staged similar varieties.

With twelve Teas or Noisettes, three blooms of each, Mr. Stephen Treseeder was again placed first.

Sweet Peas were well and extensively staged, and in the chief class for twelve vases there were six entries, the best coming from J. M. Herbert, Esq., Aberdare, who had the Hon. Mrs. Kenyon, Scarlet Gem, Mr. W. Wright, Dorothy Eckford, Miss Willmott, Black Knight, Chas. Spencer, Lord Rosebery, Lady G. Hamilton, Duke of Westminster, Prima Donna, and Coccinea in splendid condition. Mr. Garrish was placed second, and Mr. Poston third.

Dahlias were largely shown, and the leading exhibitors had perfect blooms. In a class for twelve blooms Mr. William Treseeder, Cardiff, staged six show varieties and six Cactus. Mr. L. Williams, Gwean-ic-Cwm, Dinas Powis, was placed second, and Mr. Eran Havard, Llandaff, third.

For twelve Cactus Dahlias, for which Mr. W. Treseeder offered special prizes, there was keen competition, Mr. Malpas, gardener to Dr. Lynn Thomas, Green Lawn, Cardiff, taking leading honours with beautiful blooms.

Fruit was well shown and in great quantity. A collection of six varieties brought, however, only two exhibitors. Mr. Thomas, Aberant Gardens, Aberdare, was placed first with good Black Hamburg and Foster's Seedling Grapes, a seedling Melon, Peaches, Pine-apple Nectarines, &c.; Mr. Collier was placed second. In a class for three bunches of Black Hamburg Grapes, Mr. Davis, gardener to E. M. Hann, Esq., Oaklands, Abernau, was first with finely finished fruits; second, Mr. C. Curtis, gardener to G. Cartwright, Esq. Mr. Thomas was first for Muscat of Alexandria, and was followed by Mr. Lawrence, who was first for any other white variety with well-finished Foster's Seedling, Mr. Thomas coming second with Golden Champion. For any other black, except Black Hamburg, Mr. Thomas was again first with good bunches of Madresfield Court, Mr. Curtis being a good second with the same kind.

Non-competitive exhibits were leading features. Of these Mr. William Treseeder staged a fine collection of herbaceous flowers, Dahlias (both Cactus, show, and Pompon varieties), bouquets, wreaths, crosses, baskets of flowers, stove and greenhouse plants, &c., for which he was awarded a silver medal,

Mr. F. W. Evans, Llanishen, was awarded a bronze medal for a splendid collection of herbaceous flowers. Mr. Stephen Treseeder staged an excellent collection of Roses, plants, and cut shrubs; Messrs. Ellis and Sons, Cardiff, a beautiful miscellaneous collection of plants and Ferns; Mr. Baggesen had a pretty exhibit of greenhouse plants, wreaths, crosses &c.; and Mr. Farmer, gardener to the Marquis of Bute Cardiff Castle, a fine group of stove plants.

TROWBRIDGE HORTICULTURAL SOCIETY.

A SOCIETY which can hold an annual exhibition for the uninterrupted space of fifty-five years has some elements of vitality and permanence about it. The fifty-fifth exhibition of the above society was held at Trowbridge on the 17th ult. The society is fortunate in being the owners of a field close to the railway station, in which the show is held, and there is a reserve fund of several hundreds of pounds. The day was, unfortunately, very wet, but with such a nest egg and a good subscription list the loss will scarcely be felt. The president, Mr. A. P. Slancom, J.P., said at the luncheon to the judges that he had attended fifty-three out of the fifty-five shows which had been held, while Mr. George Snaill, the hon. secretary, stated that he had attended all but one.

The Trowbridge show is remarkable for one fact, that the majority of the exhibits are grown locally. There were three collections of nice stove and greenhouse plants in flower, and good specimens, too, all grown in the neighbourhood. The specimen Fuchsias also, the like of which are not seen out of Trowbridge, are all grown in the immediate district. Some of the fruit comes from a little further afield, and some of the cut flowers, but the main portion of them—and cut flowers at Trowbridge are a very fine feature—are locally grown, while vegetables are always very good, from cottagers especially, there being many, all of merit, and cottage gardens.

Fuchsias, which head the schedule of prizes, are tall cone-shaped plants caused by the branches being tied in quite close, but they are generally grandly grown and bloomed, averaging from 7 feet to 8 feet in height. It would be difficult to find such plants outside the district; the best six specimens were from Mr. E. T. D. Foxcroft, Hinton, Charterhouse (Mr. Chislett, gardener), the varieties mainly locally raised; Mr. H. Pocock was second, and Mr. G. Tucker third, both local nurserymen. With four specimens Mr. Chislett was again first, Mr. Tucker second, and Mr. H. Pocock third. If some of these plants could be produced at one of the meetings of the Royal Horticultural Society they would create a sensation. Excellent Fuchsias were also shown by working men.

The best nine specimens of stove and greenhouse plants were staged by Mr. George Tucker, who had very good examples of Bougainvilles Cypheri and Galbra, Ixora Fraseri, Dipladenia brearleyana (very good), Allamanda nobilis, &c. Mr. W. J. Mann, Trowbridge (Mr. H. Matthews, gardener), was second. Mr. H. Matthews had much the best six specimens, among them a fine piece of Erica; Mr. E. H. Atcherley was second. There was a class for three specimens also, in which Mr. G. Tucker was first. Specimen foliage and flowering plants were also shown. Rarely are better specimen zonal Pelargoniums shown elsewhere than at Trowbridge. Six from Mr. H. Pocock were very fine. Begonias, both single and double, were remarkably good.

There were two classes for groups. In both cases Messrs. G. Cray and Son, Frome, were placed first with finished arrangements. Messrs. J. Stokes and Son, Trowbridge, had the best twelve Ferns, showing very good specimens. Mr. Strugnell, Rood Ashton Gardens, had the best of specimen foliated plants. Good Caladiums and Coleus were also shown. Plants were also shown in several classes by working men. Cut flowers are numerous and finely shown at Trowbridge. Asters were shown in three classes, all very fine indeed; the quilled and comet types were very fine, and they came as a surprise, as they were so poorly shown at Taunton a few days previously. Roses were also an excellent feature. Mr. J. Mattock, Oxford, had the best twelve trebles, showing capital blooms. Messrs. J. Jefferies and Son, Cirencester, were first with thirty-six blooms, and also with twenty-four; and again with twelve and twenty-four Tea-scented, showing in each case remarkably good blooms for the time of year. Mr. J. Mattock was first with eighteen bunches of garden Roses, making a very fine display. Stove and greenhouse cut flowers were admirably shown, and hardy flowers in collections of twenty-four bunches were a good feature, as also were hardy annuals in bunches. Dahlias of all types were in excellent character, so were Gladioli, Sweet Peas, and zonal Pelargoniums.

Floral decoration consisted of artistic epergnes shown in three classes; bouquets and prettily arranged dinner-table, Mrs. Colston Hale taking the first prize, and Messrs. E. Cole and Son, Bath, the second.

Fruit was in good character. Mr. Strugnell was first with a collection of ten dishes, having Black Hamburg and Foster's Seedling Grapes, Royal George Peaches, Stanwick Elruge Nectarines, Plums, Apples, Melons, &c. Mr. W. Oliver, The Gardens, Littleton, Panell, was second. With six dishes, Mr. J. W. Fleming, Romsey (gardener), Mr. W. Mitchell, was first, and Mr. Strugnell second. Mr. Mitchell had the best two bunches of Black Grapes, having fine Gros Maroc, also two bunches of white, staging Foster's Seedling, and two bunches of Black Muscats, showing Madresfield Court. Mr. A. Bailey, Bath (gardener), Mr. A. Taylor, was first with two bunches of White Muscats, having Muscat of Alexandria. Melons were shown in two classes. Greengage Plums were of good character. There were also excellent Apricots, Cherries, Peaches, and Nectarines. The two best dessert Apples were Beauty of Bath and Gladstone; Beauty of Bath and Lady Sudeley took the second prize. The two best culinary Apples were Peasgood's Nonsuch and Hants Seedling, the latter in the way of Blenheim Orange; the second prize went to Peasgood and The Queen.

Some good collections of vegetables were shown in competition for the special prizes offered by Messrs. Sutton and Sons and Toogood and Sons, and also in several other classes. The cottagers' productions were specially interesting.

DEATH OF THE DEAN OF ROCHESTER.

THE death of the Very Rev. Samuel Reynolds Hole, Dean of Rochester, although, owing to his late precarious state of health and advanced age, not altogether unexpected, yet comes with the painful shock of sincere grief to the many who knew and loved him, and to the many more who knew his name and fame, not only as a distinguished ecclesiastic, but as a keen and true-hearted gardener.

THE GARDEN owes him a heavy debt of gratitude from its very earliest days, for it was largely owing to his sympathy, encouragement, and practical help that its inception became a fact, and that its founder, Mr. William Robinson, put it forth with courageous confidence and the sure conviction of the need of that horticultural teaching that he, almost alone, could then put into it—a confidence that has been so fully justified by the undoubted fact that the pages of THE GARDEN, supplemented by Mr. Robinson's books, have been the means of bringing all England into close touch with, and accurate knowledge of, all that is best in hardy gardening.

It was a good half century ago that the late Dean, then a young clergyman, curate, and afterwards vicar of the parish of Caunton in Nottinghamshire, in which his father was the squire of Caunton Manor, was first attracted by the beauty of flowers, and especially of Roses. Quickly his love of Roses increased, until he became the acknowledged chief among their amateur growers. The National Rose Society, of which he has been for many years president, owes much to his constant support and leadership. His addresses at the annual meetings were always eagerly looked forward to, for the celebrated preacher was also a ready speaker, and his speeches, manly, elevating, inspiring, and humanly touching, went straight to the hearts of his hearers, there evoking all that was most in sympathy with his own lofty ideals and with his humbly grateful acknowledgment of the happiness that awaits the good gardener.

Such utterances also found expression in his books, and such a one from "The Six of Spades" may well be quoted here:

"For it is the wisdom and goodness of gardening which makes it such a deep and enduring happiness. It is thankfulness, reverence and love, which make our gardens dear to us from childhood to old age, for

'Love is like the ocean, ever fresh and strong
Which the world surrounding, keeps it green and young.'

"Yes, it is because we cannot really love the beautiful flowers without loving Him 'Whose breath perfumes them, and Whose pencil paints;'

it is because there lies deep in the heart of man a yearning to recover Paradise, and to rest once more upon the Mount of God; it is because the wisest of men, such as were Bacon and Newton, were happiest in their gardens, and spake of gardening, from a glad experience, as 'the purest of human pleasures;'; it is because men, such as was Wordsworth, have bequeathed to us the certain confidence that 'Nature never did betray the heart that loved her;'; it is for these reasons, and many another as true and

contact with him without being the better for the knowing of a splendid Englishman.

His dear life-partner, the widow who survives him, herself one of the best of gardeners, will have the sympathy of all the readers of THE GARDEN in this sad week which lays the Dean to rest in the churchyard of his old Nottinghamshire home, the scene of the full thirty years of his earlier ministry.

"A BOOK ABOUT ROSES," published as long ago as 1869, the "Book About the Garden" (1892), "Our Gardens" (1899), "A Little Tour in Ireland," "Memories," "More Memories," "Now and Then," and the delightful "Six of Spades" are the most important of his contributions to horticultural literature.

He was, as already mentioned, one of the founders of the National Rose Society, and the Rev. H. D'ombain, whose years almost number those of the Dean's, told in THE GARDEN of July 6, 1901, the story of the beginning of this beneficent association:

When in the autumn of 1876 it occurred to me that we ought to have a National Rose Society, I looked at the question from all points of view; I saw at once that it was a question of some magnitude, and that there were many difficulties surrounding it, and I asked myself could these difficulties be surmounted, and should we be able to establish a society worthy of the Queen of flowers? The conversations which I had with many rosarians very much encouraged me; some took up the question enthusiastically and were ready to promise substantial help, and so I ventured to summon a meeting. The next question was where should that meeting be held, and I was able to answer this satisfactorily, for the year before I had been able to found the Horticultural Club, and our first domicile was in the Adelphi Terrace. The rooms were small and low pitched, but still, as it would save the expense of hiring, I was enabled as secretary to invite rosarians to attend there and see what could be done. Well, it was an anxious time, and the day I had named for the meeting (December 6) was about as bad a one as could be imagined. The rain came down in torrents, and as we looked out on the leaden sky and the dull grey river I almost felt that I was sorry that I had



THE LATE DEAN OF ROCHESTER.

gracious, that the pleasures of gardening are so great and lasting"

Those who had the happiness of the late Dean's friendship knew well how staunch and trusty a friend he was, how tenderly kind, how sympathetic, how encouraging. His very presence, with its radiant dignity; his 6 feet 4 inches of stalwart manhood; the kindly smile and gracious speech, were as a burst of sunlight in any assemblage; none could come into

commenced the undertaking; but as one well known rosarian after another trooped into the room my spirits revived, and when I saw the portly form of my excellent friend the Dean of Rochester, then Canon Hole, enter the room I felt that if he would join in the undertaking the thing was half done. He very kindly took the chair. I was asked to act as secretary, which I agreed to do on condition that I had nothing to do with the finance. A subscription list was at once started, a few rules were drawn up, those rosarians present were formed into



THE LATE DEAN AMONGST THE ROSES AT CAUNTON.

Masonic friends whom he met in America a present of a processional cross for the cathedral, and in 1899, to his great gratification—for he had been a Freemason for over half a century—certain members of the Craft provided stained glass windows for the clerestory in memory of the Dean's appointment as Grand Chaplain. The Dean was very popular in Rochester, and he took a great interest in charitable and educational work in the city. In December, 1901, he was presented with a gold watch by the clergy of the cathedral and district in commemoration of his eighty-second birthday, and in the same month he received at the Deanery the freedom of the Tin Plate Workers' Company of London, of which he was honorary chaplain. He became chaplain to the Archbishop of Canterbury (Dr. Benson) in 1883, and was granted the Lambeth degree of D.D. in 1887.

We may well recall his words in THE GARDEN of July 14, 1900, page 23, when in response to our wishes he spoke of his own life and love of flowers.

I have passed eighty milestones on the journey of my life, being now, as the old gardener described himself, "an octogenerian," I have travelled on high mountains and in lowly vales. I have dined in a royal palace with the best of queens that ever sat upon a throne, and I have taken tea (they said it was tea) with paupers in cottages of mud. I have had famous men for my friends, statesmen, judges, generals, admirals, authors, artists (there is no art to compare with his who beautifies the land on which he lives), and I have tried to be a friend to the infamous. With peers and peasants, millionaires and mechanics, with all sorts and conditions of men I have lived my life.

I have loved a garden always. That love is innate in all the children of "the grand old gardener and his wife." It is suppressed, it is annihilated by the cares and more exciting pleasures of this life—but it is an instinct born within us—to seek the Violet on the bank, the Primrose in the wood, and the Cowslip in the mead. And I affirm that this love of the beautiful, maintained and developed in horticulture, is the surest, purest, healthiest, happiest of all our recreations; and because it is so, it is, or it should be, in some form or other a common enjoyment; it is meant, like pure light, pure air, pure water, for us all. And like Love itself, like Charity, it never fails. Age cannot wither it nor custom stale its infinite variety.

The time comes to the horseman when he deviates from the stiff timber and the flowing brook and makes for the gate and lane; when the erratic snipe, the humble cooney, the partridge, and the pheasant, driven by the wind, elude the gunner's aim, when the pury batsman is run out breathless, and enquiries are made as to the price of butter to the fieldsman who has missed the catch; but the joy of flowers, like Tennyson's brook, goes on for ever; from the baby who tries to pull the flowers from nurse's cap to the old man with snow on his head but with summer always in his heart.

Every gardener will join me in a general thanksgiving for the happiness which it has brought into our lives, and for the special mercies which have been vouchsafed to us of the present generation.

Not only is the love of trees and flowers expanding around us, but there is the manifestation of a desire for their more graceful arrangement by a return to the English or natural system. If this should be denounced as a retrograde movement I should maintain that it was the return of a belated traveller, and should not hesitate to affirm that our gardens sixty years ago were, speaking generally, more deserving of that title than now.

a committee, and we committed ourselves to an undertaking of which none of us knew the real bearing, and so commenced the National Rose Society.

And whenever he was enabled to attend the meetings and shows of the society how sincere the welcome extended to this prince of rosarians, and well we remember his delight when at the Rose Society's exhibition in 1901 he had the honour of receiving Queen Alexandra.

The story of his devotion to the culture of Roses has been told many times in the pages of THE GARDEN, and a short series of articles, the beginning of which we publish to-day, were written not long ago, and are among the last of this great rosarian's contributions to the literature of the flower he loved so well.

The Dean died at twenty minutes past three on Saturday morning last, in the presence of Mrs. Hole. The first part of the funeral was held in the cathedral on Tuesday afternoon, and on Thursday in the churchyard of Caunton the solemn rites were concluded amidst a large gathering of personal friends and working men, to whom his messages of helpful counsel were not unheeded. Many a life was cheered by this large-hearted Churchman—the friend of rich and poor.

The following extracts are from the *Times* of Monday last:

The Very Rev. Samuel Reynolds Hole, D.D., was the son of the late Mr. Samuel Hole of Caunton Manor, Newark, where his ancestors had held property since the days of Queen Elizabeth, and was born in December, 1819. He was educated at Newark Grammar School, and as a schoolboy could remember Mr. Gladstone's candidature for his first seat in Parliament, the two men being friends in later life in spite of Mr. Hole's utter disagreement with Gladstonian politics. From the Grammar School he proceeded to Brasenose College, Oxford, where he graduated in 1844. He at once submitted himself for deacon's orders to the Bishop of Lincoln (Dr. Kaye), then the diocesan of Nottinghamshire, and undertook the curacy of his ancestral parish of Caunton, where he was to labour for the long space

of forty-three years. He became vicar of the parish in 1850, and was a parish priest of the best sort, knowing the circumstances and needs of his people, especially the working men. His position as squire of Caunton, to which he succeeded in 1868 on his father's death, gave him opportunity of indulging his taste for field sports, and he could hunt and shoot with the best, but this never involved any neglect of his work as the parson; he had daily services, and he paid his daily visit to the parish school. It was also at Caunton that he established himself as an authority, perhaps the authority, on Rose culture.

But his delight in the pleasures of a country life were only one side of a delightful character. In 1858 he published, in conjunction with his friend John Leech, "A Little Tour in Ireland," and he had been at one time a not infrequent contributor to *Punch*. The volumes of "Memories" (1892) and "More Memories" (1894) are full of good stories, new and old, which show the Dean's well-known skill as a raconteur. And he carried these gifts to the highest uses. . . . In his native diocese he held many offices. He became rural dean of Southwell in 1873, prebendary of North Kelsey in Lincoln Cathedral on the nomination of Bishop Christopher Wordsworth in 1875, and he was Proctor in Convocation, first for Lincoln diocese in 1883, and, on the division of the diocese, for the clergy of the archdeaconry of Southwell in 1884.

He resigned all these on his nomination by Lord Salisbury to the Deanery of Rochester, in succession to Dr. Scott, in 1887. At the time of Dean Scott's death Mr. Hole was staying at Rochester with Canon Jelf, and he has recorded in one of his books that an inward conviction came to him that he would be Dean of Rochester. He was as faithful in his care of the cathedral as he had been of his country parish, and considerable improvements were effected under his direction. For instance, he made the Sunday evening services in the nave a permanent institution, and often preached at them. In 1895, at the age of seventy-six, he undertook a lecturing tour in the United States, with the intention of devoting the proceeds to the restoration of the cathedral tower. He brought back a great many stories, but only enough in the way of proceeds to carry out some minor improvements. In the following year he received from some

I do not deprecate the judicious introduction of half-hardy plants, the combination of flowers with balustrades and copings and statues. These are stately and appropriate surroundings of the palace and the castle, but they do not constitute a garden. My idea of a garden is a place in which a man collects the most beautiful trees, shrubs, and flowers which he can procure, which are suitable for the site and for the soil, and so disposes them that they give you the idea of being at home and happy; and this garden should be, so far as he can make it, secluded and suggestive, not only of admiration, but of meditation, rest, and peace.

Only one more consideration, but it is the most important and interesting to those who desire, as we all should desire, the perfect happiness of the greatest number. I mean the noble efforts which are being made by our landed proprietors and county councillors to induce the working classes to cultivate cottage gardens and allotments. I would only say that if you could persuade a working man to try horticulture, and prove to him that he can supply himself with things pleasant to the eye and good for food, and show his wife how the latter should be cooked, you will do more to keep him from the public-house than by any other process hitherto applied.

I am thankful for the sympathy which in our brotherhood never fails, and in grateful acknow-

ledgment I wish to everyone that which has been given to me—the long and happy life of a gardener.

“He wanders away and away,
With Nature the dear old nurse,
And she sings to him night and day
The hymns of the universe.
And whenever his way seems long
And his heart begins to fail,
She sings a yet more wonderful song
Or tells a more wonderful tale.”

S. REYNOLDS HOLE.

Several illustrations are given of the Dean's Cauntun home, and in that portraying a corner of his Rose garden we see the striking figure that, alas! has gone from us full of years and honour. The Dean was one of the original sixty Victoria Medallists of Honour, and a keen supporter of the Gardeners' Royal Benevolent Institution. He presided on one occasion at the annual dinner, and years before his friend, Charles Dickens, occupied a similar position.

THE death of the Dean of Rochester will call forth many letters of regret. If you will allow me space to offer a small tribute to the memory of this great rosarian I shall be glad. To read his book is a keen pleasure to the enthusiastic Rose lover, and it is brimming

over with pleasant wit and wise remarks. I remember meeting Dr. Hole at Chiswick when the Rose conference was held there in 1887. My father had long enjoyed the honour of his acquaintance, and he introduced me to the Dean. After a few enquiring remarks, he went on to speak of our employment, and he said, with that merry twinkle of the eye, he supposed if we ever embarked in commercial life the style of the firm would not be as was usual in days of yore, namely, Smith and Son, but instead Smith and Father, which was the modern manner of description.

Every rosarian must feel indebted to Dean Hole for the encouragement which a perusal of his book has afforded, and his loss will be keenly felt by both small and large growers of Roses.

I am sure we are also deeply grateful that a man with his rich knowledge could find time to give to the study of the Queen of Flowers. What could be more caustic than his remarks upon “soils.” After describing the position of the Rose garden, he goes on to say that Roses may be grown to perfection in the ordinary garden soil, if that soil is *cultivated*. Then he says: “I don't mean occasionally



HARDY FLOWERS AT CAUNTUN MANOR.

scratched with a rake and tickled with a hoe or sprinkled with manure from a pepper-box."

No; Dean Hole knew from personal experience the art of cultivating the soil, and in his writings he was ever anxious to impart that knowledge to his readers.

The Rose world will grieve for his loss, and we may possibly never look upon his like again.

I am glad that Messrs. A. Dickson and Sons have named a really grand Rose after him. May it long be cultivated to keep his memory green! I have heard my father speak of the time when someone named a very inferior Rose after Dean Hole, and his old gardener was so indignant that he said, "What, name such a thin papery thing after *my* master!" I do not imagine anyone will call the novelty of this year "thin" or "papery," albeit, it may prove to be too much like Maman Cochet; but we shall see.

W. EASLE.

MANY a one will be ready to say that by the death of Dean Hole a notable light has gone out from amongst us. It is not in our province here to speak of his work as an ecclesiastic. Others have told of it in fitting place and

Hole, throughout his long life as parson, squire, and high dignitary of the Church had always a kindly word for gentle and simple—a jest without a sting wherewith to soothe the ruffled spirit of a disappointed exhibitor, a ready wit to raise a laugh and avert the annoyance which might be threatening.

Connected with THE GARDEN from its inception, his well-known features appear in the second volume, published more than thirty years ago, as a distinguished horticulturist to whom it was most natural and appropriate to do honour. Articles signed by his familiar initials were heartily welcomed by editor and reader alike, and his advice on all matters horticultural, more especially on Roses, was respectfully listened to and attentively studied. His cheery books—and these not only on his favourite theme—have long been household words in every home. His arrival was hailed with delight by everyone concerned at all the most important gatherings of gardening associations, and it was only so lately as the last annual exhibition of the National Rose Society that the absence, through serious illness, of the venerable president who had

Mr. J. WRIGHT, V.M.H., kindly sends a copy of a letter in his possession which was written by the Dean of Rochester on February 7, 1867, when he was Vicar of Cauntton, to Mr. Henry Curtis, at that time a great rosarian at Torquay, afflicted with blindness.

To H. C.

Oh friend, for friend thou art, altho'
Our hands have never met,
Believe me, in thine hour of woe,
Mine is a true regret.

What! from thy little day so soon
The sun withdraws his light?
Falls on thy manhood's afternoon
Old age's dismal night?

Those eyes, which to the Rose, their Queen,
Such reverent homage paid,
From them must all her loyal sheen
And all her glory fade?

Not so, not so! tho' all beyond
Be dimness and be gloom,
Within thine heart, so true and fond,
The Rose shall ever bloom.

And there the Faith, in sorrow dear,
Which soothes our sad unrest,
And softly whispers, "Never fear,
Whate'er GOD does is best."

Shall tell thee of an Eden fair,
In which a SAVIOUR kind,
Who, in our likeness, heard our prayer
Of the poor helpless blind.

All cares, all tears, shall banish in
That day which has no night,
And all that's dark shall vanish in
His Everlasting Light.

S. R. H.

Cauntton Manor, Newark, February 7, 1867.

THE FUNERAL.

THE first part of the funeral service took place in Rochester Cathedral on Tuesday afternoon last, when a large gathering was present, including the Mayor and Corporation, the Earl of Darnley, Mr. C. Tuff, M.P., Lieutenant-General Sir Charles Warren, Major-General Sir R. Hart, V.C. (commanding the Thames District), Rear-Admiral R. W. Craigie (Superintendent of Chatham Dockyard), Colonel-Commandant C. G. Gordon, R.M.L.I., Colonel Barter (Chief Staff Officer), Engineer Rear-Admiral W. H. Davis, and a large number of the local clergy and principal citizens.

The Bishop of Rochester, who is in Italy, was represented by his chaplain. The principal mourners were Mrs. Hole, Mrs. Burnaby-Atkins (sister-in-law), and Mr. Edward Francklin (brother-in-law). Mr. Hugh Hole, the only son, was unable to return from Norway in time to be present. The service was fully choral, and the hymn "Hail, gladdening light, of His pure glory pour'd." The inscription on the coffin was: "Samuel Reynolds Hole, born December 5, 1819; died August 27, 1904." After the service the body was removed to the Lady Chapel, the flowers, chiefly Roses, being placed on and around the coffin.

Many friends of the late Dean assembled in the churchyard of Cauntton on Thursday last, when the National Rose Society, of which Dean Hole was the first president, an office which he continued to hold until his death, was represented by Mr. H. V. Machin, one of the vice-presidents, and Mr. Edward Mawley, the hon. secretary. Roses filled the air with their fragrance, for most of the floral tributes were of the Queen of Flowers, which from his boyhood days was the delight of the Squire of Cauntton. Such a wealth of Roses would have been impossible a few years ago, when the beautiful Teas and Hybrid Teas were yet unborn.



CAUNTTON MANOR.

words. We think of him as the "devout lover" of horticulture in general, and the keen rosarian in particular—a cult which he never thought fit to separate as incongruous from that other more serious work of his life. By us his memory will ever be cherished as the able and genial helper in the first Rose show, and as the kindly friend, and wise and sympathetic counsellor of all gardeners, and not least of the artisan, whose lot in life, through long years, he strove to brighten, and whose tastes he desired to raise by doing all in his power to bring within his reach the same refining art which had been his own chief joy and life-long refreshment. We may not mourn unduly that at the ripe age of eighty-four the light of this long and honoured career should have burnt low and gently expired, but his genial presence will be sadly missed by many who are in very diverse ranks of life.

We look about us and it is borne in upon our minds that cheerfulness is one of the rarest as it is one of the most beneficent of human attributes, for it is seldom other than the sign of inward peace and wholesome content. Most of us are too self-centred and too little at leisure from ourselves to be cheery, but Dean

been one of its pioneers and most loyal supporters cast a gloom over an occasion which otherwise would have been a red-letter day in Rose annals. Alas! that his place as its revered head will know him no more.

Quite lately we have seen it deplored in print that the country parson should, in too many instances, be given over to the cultivation of his Roses rather than to the cure of souls. In Dean Hole we have had an eminent pattern to copy of one who was exemplary in his vocation, yet at the same time made his hobby go hand in hand with sacred duty, ministering by its aid to the human side of those with whom he was called to deal, and by its means, handled in his own happy and inimitable fashion, helping many a one out of the dregs of earthliness, and lifting them higher towards the garden of God.

The light that we loved, alas! has gone out, but not before, let us be sure, that other sparks have been kindled by its fire to brighten some of the darkened corners of this lower world, which need not be so gloomy if each of us did our little part, if not so brilliantly, yet to the best of our ability, to carry good cheer as he did wherever we may go.

K. L. D.



THE GARDEN

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DAMSONS IN 1904.

STONE fruits generally seem to have acted in rather a spasmodic way this year, for though the bloom was good everywhere the crops appear to be patchy. In some parts of the country Plums are by no means a heavy crop, but in the west of England the trees are loaded with fruit, and at the moment of writing Victorias are so plentiful that growers are at a loss to know how to dispose of them at a profit. We do not anticipate any such trouble regarding Damsons, as this useful fruit is by no means over-abundant. A few years ago there was a perfect glut of Damsons, but since then we have never had even a moderately heavy crop, and last season this fruit failed, in common with most others. It is not easy to understand why the Damson crop is so light, considering the heavy bloom; but this, above all other members of the Plum family, is the most liable to blight, and here may probably be found the key to the problem. The present year will long be remembered as a season of blight, and in the early days of the summer, when the young Damsons promised a good crop, the aphid legions attacked the trees, curled up the leaves, and distorted the young shoots. Under such an attack it was hardly to be expected that the fruits could go on satisfactorily, and after appearing to stand still for some days, they changed to a yellow, sickly hue, and then dropped wholesale. What would have been the result if the trees had been sprayed with some insecticide as soon as the aphid appeared is another matter; but the Damson, useful and valuable fruit as it is, does not often receive such attention.

There can be only one opinion as to the usefulness of the Damson for cooking and preserving. A glut of Plums there may be, but it does not affect the demand for Damsons, which come in when the former are over, and supply a most useful finish to the stone fruit crops of the year. It is doubtful either whether any other fruit receives so little attention from growers. Very often Damson trees are planted on the outskirts of orchards, where they form a profitable means of protection for other trees. They need no pruning, and sometimes, but not often, is it considered necessary to feed them at all. The Damson, however, like other hardy fruit, will show the results of feeding, and a grower of our acquaintance was puzzled to know why one particular Damson tree in his orchard produced much finer fruit than any of the

others. He overlooked the fact that this particular tree stood close to the pig pen, from which the rich brown liquid trickled and soaked into the ground over the roots of the Damson, and this, of course, accounted for the fine fruit.

The homely Damson, accommodating though it is, has its likes and dislikes as regards situation, and it appears as though it has settled itself in colonies in certain localities. Cheshire is a great county for Damsons, and in one part of North Staffordshire this fruit is grown almost exclusively on an extensive scale. We hear sometimes about the advantages of growing fruit in hedgerows, and in the locality under notice there is no novelty about the system, if such it can be called, for the hedgerows on many of the farm homesteads are full of Damson trees. There is no order about their arrangement, and it is questionable whether they were planted in the first instance, but probably established themselves from seedlings or suckers. In the district referred to, which is situated on the rising ground from the valley of the river Dove, the soil is mostly stiff and retentive, and the Damsons are quite at home in it. No other fruit is grown to any extent, but on every farm and cottage homestead there is a Damson orchard, and in addition trees are dotted freely about the meadows and pastures. The crop is more or less a lucrative one, just according to its proportions, and whereas in some seasons it helps considerably to pay the rent in others the fruit barely pays for picking. It may be observed that Damsons have a habit of going to extremes in the way of cropping, and after being laden to breaking point one season the trees will go a few years and return next to nothing.

Just as Damsons seem to be naturalised in certain localities, so also do varieties appear to belong to their own districts. In the fruit plantations of Kent Damsons are extensively grown, but the Kentish Damson is a poor thing compared to that of Cheshire and Staffordshire. It is a heavy cropper, but the fruits are small and dry, and the trees do not attain to any great size. Generally speaking the latter are grown on land under cultivation, but we think that Damsons do better when grown on grass land. We are not aware whether any attempt has been made to introduce the variety of the Midlands into the southern counties, but if it would succeed it would prove an acquisition.

The Damson grown on the rich dairy farming lands in the Midlands is large, of excellent

flavour, and oval in shape. The finest fruits are obtained where the soil is deep and rich, and a marked difference can be seen in samples grown on such land and those obtained from trees growing in thin shallow soil. It may be said of the Midland farmer that he does not profess to be much of a fruit grower, and he is by no means directly responsible for the presence of the Damson orchard on his holding. He received it, in most cases, as a legacy from his predecessor, and the ball is kept rolling, so to speak, by putting in a young tree here and there to take the place of one which has dropped out. The fact that the trees continue to grow and bear without any cultural attention speaks well for the accommodating character of the Damson in districts naturally adapted for it, and this appears to account for the colonies of the fruit which are to be found in various counties.

The methods of distribution are certainly not so good as they might be, because the Damson is such a popular fruit that there would doubtless be ample consumers for the supply, even in seasons of plenty, if buyers and sellers were only in closer touch with each other. Things are certainly better than they used to be, but even in recent years we have seen farmers taking their Damsons to market in all kinds of receptacles, ranging from a clothes basket to a milk churn.

In September and the early part of October is the Damson harvest, and this year there are no anxieties about over supply. In some districts the crop is light, and in others there is a moderate sprinkling of fruit on the trees, which, bearing in mind the shortage of last year, can hardly fail to be remunerative.

ORNAMENTAL GOURDS.

GOURDS that are grown for decorative effect, as distinct from those planted for their economic value, do not hold that position in our gardens that their merits as attractive climbing plants deserve. This fact was brought to mind by the several displays of ornamental Gourds at the exhibition of the Royal Horticultural Society in their new hall on Tuesday last, and by the interesting and instructive lecture respecting them given by Mr. W. Odell, who also sent a most representative collection of species and varieties, some seventy or eighty altogether. Many of the Gourds are plants of bold and distinct appearance, and all produce an unusual and often quaint effect in the garden landscape. It is safe to say that with no other climbing plants can such remarkable results be obtained in so short a time, for the

Gourds must be treated as annuals. Mr. Odell showed numerous illustrations of Gourd-covered pergolas that were most quaint and picturesque, while possessing a certain beauty, too, by reason of their bold handsome foliage and multi-coloured fruits. These plants have an added value in that they are at their best during the months of September and October, a period when the flower garden loses, to a considerable extent, its beauty and interest.

For covering pergolas, rustic poles, tree stumps, forming screens to block out unsightly buildings, to give life and colour to the unpleasing rubbish heap that often is an eyesore in gardens, they are eminently suited. Often one has to complain of the monotony of outline of plants in the herbaceous border, and here the Gourd may be used with great advantage. A few rough cut poles placed along the border at intervals and clothed with some of the more attractive Gourds add a feature of much interest, and destroy the regularity of outline, a fault that will detract from the effect of a border planted to the most approved colour scheme. Gourds are also eminently suited to the beautifying of the kitchen garden. Mr. Odell showed pictures of a simply constructed pergola of rough wooden poles, erected over a long path in a vegetable garden. In April it was seen to be absolutely bare, in September smothered in luxuriant leafage, hiding brilliantly-coloured fruits of many forms.

A curious point about the Gourds is their mimicry; there is hardly a fruit that has not its counterpart among the Gourds—the Lemon, Pear, Apple, and Gooseberry at once come to mind—and there are numerous other shapes besides. The resemblance of some of them to the real thing is remarkable, the Gooseberry, for instance; at a short distance it would be almost impossible to detect any difference. Mr. Odell recommended the seed to be sown in April, in frames, growing on the plants and gradually hardening them off for planting out in June. It is not necessary, however, to raise the seedlings under glass. The seeds may be sown out of doors in rich soil where the plants are to remain. The only difference in the result will be that the fruits will not form and develop so early. A rich soil is essential to the successful cultivation of these plants, and also, we must add, a sunny season. In cold, wet, sunless summers the Gourds have no chance of showing their possibilities—they are essentially hot weather plants. Thus in 1900, and again this year, they have done remarkably well.

H. H. T.

RECENT PLANT PORTRAITS.

The second number of the *Revue Horticole* for August figures

Gurania eriantha, a native of Peru, whence it was introduced in 1903 by a Portuguese amateur named Carvalho Monteiro. It is a most curious and beautiful trailer, a member of the Cucurbit family, and produces on long, pendulous stems balls of singularly shaped orange-red flowers. For its successful cultivation it requires the temperature of a stove.

The September number of the *Botanical Magazine* contains portraits of

Rosa gigantea.—Native of Eastern India, North Borneo, and Western China, also known as *R. macrocarpa*. This is an extremely fine angle-flowered Rose, first discovered by Sir George Watt in Manipur in 1882. The large flowers are white, and sometimes 15 inches in circumference. Seeds were sent to Kew in 1888 by Sir Henry Collett, which germinated freely, and the plants grew most luxuriantly, but refused to bloom, notwithstanding every effort made to induce them to do so. The specimen figured bloomed in 1903 in the

Duchess of Northumberland's garden at Albury Park, near Guildford.

Dyschoriste Hildebrandtii.—Native of East tropical Africa, also known as *Calophanes Hildebrandtii*. This is a rather pretty little stove shrub with bluish grey flowers, which bloomed in the tropical Nymphaea house at Kew.

Dendrobium Williamsoni.—Native of North-Eastern India. This is a pretty Orchid with medium-sized, creamy white flowers, which have a deep orange ring round their throat.

Pyrus niedswetzkyana.—Native of Central Asia. This is a remarkably distinct and beautiful flowering Apple. The flowers, which are profusely produced, are a beautiful, clear, deep rose colour, and very remarkable and showy. With the exception of the leaves, all parts of this Apple are red—bark, wood, flowers, and fruit, and the leaves turn red in autumn. Even the flesh of the nice tasting fruit is of a deep rosy red. It is hardy at Kew.

Moraea Thomsoni.—Native of Eastern tropical Africa. This is a rather pretty but not very highly coloured Irid, with bluish grey flowers, in shape resembling those of a large *Triteleia*.

The *Revue de l'Horticulture Belge* for September contains a fine double plate portrait of a new *Cypripedium* (or *Paphiopedilum*) *glaucophyllum*, which is a native of the island of Java, and was introduced as recently as July of this year by M. Kimstad, who also is responsible for its portrait. It is said to be almost a perpetual bloomer, so should be extremely useful as a parent and seed bearer to hybridisers of Orchids.

W. E. GUMBLETON.

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.

JASMINUM GRANDIFLORUM.

To those who are unacquainted with this deliciously-scented and handsome-flowered Jasmine I would strongly recommend its cultivation. It is usually described as a warm greenhouse plant, but I find it thrives well and flowers abundantly in a cool greenhouse. It was given to my gardener several years ago by an amateur who did not know its nature and had treated it as a hardy outdoor shrub, a treatment which it resented, but on removal to my cool greenhouse it thrived immediately and will be a joy for ever. The scent is so powerful and the flowers are so handsome that a spray will adorn and perfume a large room. It is a native of sub-tropical North-Western Himalaya, where it grows wild at an elevation of from 2,000 feet to 5,000 feet. It flowers from June to October.

FREDERICK TOWNSEND.

MAURANDYA BARCLAYANA.

Mrs. Cracroft, Hackthorn Hall, Lincoln, sends flowers of this beautiful plant, with the intimation that they were gathered from a plant not protected during the winter, the position sheltered, and aspect south.

LILIUM SPECIOSUM MELPOMENE.

"S. W. J." sends some blooms of this, the most handsome of all the varieties of *Lilium speciosum*, the blooms heavily marked with rich rosy red. Our correspondent comments upon the deep green colour of the leaves, which are remarkably broad and of leather-like substance, and writes that not only are the flowers very beautiful but the plants grow vigorously and flower freely. In company

with this variety are the pure white flowers of *Lilium speciosum Krætzleri*, which are freely produced, although the plants do not grow so strongly as *Melpomene*. "S. W. J." also sends a bunch of Tiger Lilies, including the double form, which, however, is not so attractive as *L. t. splendens* or *L. t. Fortunei*, both of which give valuable colour in the garden at the present time.

LOBELIA CARDINALIS QUEEN VICTORIA.

The flowers of this, received from Mr. H. J. Lawson, Oxon, remind us of its great value during the month of September. The rich red flowers and bronze foliage associate admirably, and give a charming note of colour. The individual blooms last a long time, and as they are produced in succession for several weeks, this *Lobelia* deserves to be in every garden. Firefly is another very good variety. *Lobelia aphyllitica*, which is quite hardy, while *L. cardinalis* is not, has given rise to many beautiful forms in the hands of the hybridist during recent years, and varieties of such shades as purple, pink, rose-red, and white may now be obtained.

SEEDLING GLADIOLI.

Mr. W. C. Bull, Rathlin, Ramsgate, writes: "Herewith a few spikes of my seedling Gladioli. The white is one of my best, though the spike is not of its usual size. The colour and texture are, however, I think you will agree, both good, and when cut with three or four buds expanded it retains its purity to the end. In the full glare of the sun it gets very slightly flecked with a few streaks of purple, as it passes out of bloom. The sulphur yellow is a lovely cut flower, with medium-sized flowers, well spaced, and the petals strong and crisp. We have had the worst drought I ever remember, ten weeks, unbroken by any rain of the slightest use, and literally thousands of my seedlings have had their spikes ruined. Those sent are from a block I gave two soakings of water early in August."

The seedling Gladioli sent by Mr. Bull are very beautiful. The flowers are of good form and delicate colouring.

ROUND ABOUT A GARDEN.

AUTUMN'S SEEDLING WEEDS.

AS autumn comes round it is always amazing to see the army corps of seedling weeds which are attempting to occupy the whole garden. Where the ground has been carefully cultivated for many years, or in enclosed town gardens, the weeds are a subdued and furtive community, seeming to evade notice and only casually flourishing for a while by pretending to be something better. But in a country garden, with ungoverned tribes of wild weeds always on the war-path round its frontiers—especially where the gardener is more of a handy man than a horticulturist—their profligate exuberance in reproducing their species where they are not wanted is astounding. It seems scarcely a week or two ago that the hoed rows of Potatoes looked as neat and clean as a girls' school going to church, and now the gardener who is forking up the tubers appears to be wading in a sea of flowering and fruiting weedstuff to find the drooping haulms. Look at the gravel path by the Privet hedge in the knuckle-end of the garden: there are more than a dozen seedling weeds, on the average, already contesting possession of each square inch of trodden stones.

GARDEN PLANTS, WILD PLANTS, AND WEEDS.

When, year after year, one sees the weeds behaving in this rampantly aggressive manner, while so many of our cherished flowers refuse to flourish properly in spite of all one's care,

one begins mentally to divide vegetation at large into three classes: First, there are the garden plants; secondly, wild plants, sometimes almost deserving a place in the flower garden; and, thirdly, weeds. It is this habit of mind which has probably prevented any serious attempt being made to tackle the weed problem. It has often been said that the weeds of one country are the garden flowers of another; but we do not sufficiently recognise that the qualities which constitute a successful weed are simply its faculties for occupying the ground where it chances to get a foothold, at any rate for a time. For there are other more enduring qualities which weeds do not as a rule possess; and when land has been abandoned to Nature for many years it becomes occupied with a permanent population of respectable wild plants, amid which the weeds of cultivation have a very poor show. Dig up a piece of ground and sow it and plant it with selected garden flowers from the best catalogues, and leave it alone for a year or two. You will find it a tangled wilderness of rank weeds. Come again twenty years later, and it may have become a charming nook of woodland scenery.

WEED-RESISTING PLANTS.

What we want is, it seems to me, a class of plants which combine the beauty of the garden flower with the pushfulness of the weed and the enduring persistence of the wild plant. We have devoted our energies too exclusively to the improvement of the blooms of cultivated plants, and the result is a coddled multitude of garden things which are as much at the mercy of invaders from outside, unless they are carefully and constantly protected, as the fat, soft races of the Bengal plains used to be before British rule intervened to hold back the tribes on the frontiers. And in India we have trained the best of the native races themselves to do the work of protection, because it would have been scarcely possible, and much too costly, to use only imported British troops unsuited to the climate and conditions of the country. Why have we not attempted to achieve a permanent success on similar lines with the acres that we annex for pleasure grounds?

MATERIALS FOR A WILD GARDEN.

There must be plenty of plants suited for the purpose. Almost all of the handsomest plants which are occasionally found growing wild in England are marked in the botany-books as "doubtfully indigenous"; yet they hold their own against the wild plants in those localities where they chance to have gained a foothold; and in our gardens there are scores of aggressive perennials and self-seeding annuals which have to be kept severely in order to prevent them from overrunning the whole place. From year to year our shrubberies and woodlands are becoming more filled with charming plants and trees which flourish where they have been placed without further assistance; and in Norfolk recently I saw a fine wood dominated by magnificent conifers, the parent of which came there in a flower-pot and had cost £5. Such successes are almost haphazard and accidental; yet, if we had bestowed a hundredth part of the care and thought, which we have given to producing beautiful varieties of tender flowers, to the education and cultivation of our hardy plants, to hold their own against all comers, we should now be able to plant and sow a new-dug piece of ground in such wise that it would remain for ever filled only with the things which we put there.

A TASK WORTH ACCOMPLISHING.

The idea may seem Utopian at the first glance, but we never know what we can do

until we try, and in many other directions we have succeeded in performing similar feats. We might not find all that we want growing wild already in other lands or established in our gardens; but everything that we cultivate becomes plastic in our hands. We can exaggerate or eliminate at will any quality which it possesses, and, although we have hitherto confined our efforts to producing such obvious improvements as enhancement of the beauty of a flower or enlargement of a fruit or vegetable, we could just as easily work equal wonders with any other of a plant's qualities. Every weed and every wild plant succeed in establishing or maintaining its foothold against our cultivated treasures by the possession of certain definite qualities. In the case of most of our commonest weeds these qualities are merely speed of growth and adaptability to all soils and seasons. Whenever the soil is left vacant they are ready to colonise it at a moment's notice, and they generally manage to set and scatter their seed before they are interfered with. Yet, if we had given our minds to it in the past, we could certainly have produced quicker, more prolific and hardier flowers, which would beat the Groundsel and Chickweed and Shepherd's Purse at their own game. Plants like Furze and Broom and Hawthorn show that a splendid wealth of bloom is not incompatible even in a wild state with perfect ability to occupy and hold untended ground against all comers. With cultivation we could produce an immense range of plants similarly equipped to fill our grounds with beauty. We could still have our flower-beds for our tender things; but when one wanders round about a garden in autumn and sees the army corps of seedling weeds assembling to invade the territory of the flowers, one cannot help wishing that the gardeners of the past had devoted more of their energies to producing flowers which would, contrariwise, overrun the weeds and hunt them across your garden frontier, as in India our tame Sikhs and Gurkhas hunt the wild Pathan.

E. K. R.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

- September 14.—Royal Caledonian Horticultural Society's Show, Edinburgh (two days).
- September 20.—Royal Horticultural Society's Committees; National Rose Society's Autumn Show.
- October 5.—National Chrysanthemum Society's Show at Crystal Palace (two days).
- October 12.—Royal Botanic Society's Show.
- October 25.—Croydon Chrysanthemum Society's Show (two days).
- November 1.—Bournemouth Chrysanthemum Show (two days); Brighton Chrysanthemum Show (two days).
- November 2.—National Chrysanthemum Society's Show at Crystal Palace (three days); Southampton Royal Horticultural Society's Show (two days); Highgate Chrysanthemum Show (three days); Lowestoft Chrysanthemum Show (two days); Portsmouth Chrysanthemum Show (three days).
- November 3.—Weybridge Chrysanthemum Show; Colchester Chrysanthemum Show; Forest Gate Chrysanthemum Show (three days).
- November 4.—Windsor and Eton Chrysanthemum Show; Battersea, Clapham, and Wandsworth Chrysanthemum Show (two days); Hinckley Chrysanthemum Show (two days).
- November 5.—Batley and District Chrysanthemum Show; Loughborough Chrysanthemum Show; Penarth Chrysanthemum Show; North Lonsdale Chrysanthemum Show.
- November 8.—Ipswich Chrysanthemum Show (two days); Dulwich Chrysanthemum Show (two days); Sevenoaks Chrysanthemum Show (two days); Southend Chrysanthemum Show (two days); Stoke Newington Chrysanthemum Show (two days).

Rose Duchesse Marie Salviati.—It is remarkable that this Rose is not grown in this country. The pink flower is not at all full, but rather of the character of G. Nabonnand, yet perfectly distinct from that well-known Rose. It is quite true that the most commonplace Tea Rose looks well in the cool, moist, autumnal days, but there is a distinct charm about the variety under notice; the pink tint fades to a silvery whiteness towards the edges of the petals. I have long heard of the variety as being a good one on the Continent, and it was only this year that I had an opportunity of seeing it. Duchesse Marie Salviati is one of the parents of Reichsgraaf E. von Kesseltalt, and the two varieties are well worth adding to any collection.—P.

Apple Miller's Seedling.—This is a second early variety. Very handsome; skin transparent greenish-yellow, much splashed with red on three sides, flesh solid; small, but the fruit seen was not the largest. Mr. R. Webb of Benham, a well-known fruitcultivator near Reading, stated that he had 90 trees of it, all cropping well, but each third year the yield is very large; the tree is a good grower. It is supposed to have been raised by a Mr. Miller, hence its name. It is somewhat of a coincidence that at the Bath Flower Show a few days later Mr. George Cooling had a seedling partaking very much of the shape, character, and marking of Miller's Seedling, but larger. I do not say they are identical, but in general character they nearly approach each other.—R. D.

Mme. Cornelisen Fuchsia.—This is quite an old Fuchsia, which appears to have slumbered for forty years or so, and then to have put in an appearance once more. Mr. Burbidge puts the year of its introduction as 1860, but I have a strong impression it was grown at the Royal Nursery, Slough, in 1855 and 1856, and was the first of the white coralled varieties. It was distributed by Messrs. Thibaut et Keteleer of Paris, and I seem to have a lively recollection of how anxiously we looked for its flowering—the first variety with a red tube and sepals and a white corolla. If it be correct, as Mr. Burbidge alleges, that it was not distributed until 1860, then the first Fuchsia with a white corolla and red tube and sepals must have been Mr. W. H. Story's Queen Victoria, which was figured in the *Florist* for 1855, and put into commerce by Messrs. E. G. Henderson and Son, then of the Wellington Road Nursery, St. John's Wood, which is now a part of Lord's Cricket Ground.—R. D.

The Fig as an ornamental tree.—

From time to time notes occur in THE GARDEN dealing with the Fig regarded solely from a fruiting point of view, but in addition to this its ornamental qualities are of such a high order that from this standpoint alone it merits far more attention than is generally bestowed upon it. The different authorities do not attempt to give the date of its introduction, and according to Loudon it has been cultivated in Britain from time immemorial. It is claimed for a very ancient specimen in the famous Fig gardens at Tarring, near Worthing, that it was planted by Thomas A'Beckett, but this may well be questioned. Other trees in the same garden serve to show the picturesque habit of the Fig when old, and I know of nothing more suggestive of sunny climes than these groves of Figs, clothed with their large, dark green lobed leaves of a firm leathery texture. They cast a particularly deep shadow, and an avenue there well shows the play of sunshine and shade. It is, however, by no means at Worthing alone that the Fig displays its ornamental qualities, for all along our southern coasts in proximity to the sea it does well, and, strange to say, very few shrubs or trees thrive within the smoke-laden area of London as well as this; in fact, Fig trees may often be seen in forecourts and back gardens, and that, too, in a condition which shows that they are at least fairly comfortable in their quarters. In any selection of trees and shrubs for London the Fig is undoubtedly entitled to a foremost place, for, in addition to its other features, the rate of growth is by no means slow, and it also stands out as the only hardy representative of a most interesting genus of plants.—H. P.

The Vilmorin testimonial.—The *Revue Horticole* remarks upon the success of the subscription list for a memorial to the late M. Vilmorin. The last lists published are remarkable for the number of amounts, both large and small, received from admirers in France and abroad of the work of M. Vilmorin. The total amount received so far is nearly 15,000 francs (£600), and the number of subscribers 1,386.

A new Crimson Rambler hybrid.—A Massachusetts nurseryman, Mr. H. Walsh, recently exhibited before the American Floricultural Society a new Rose named Arcadia, said to be the result of a cross between Crimson Rambler and General Jacqueminot. The flowers are large, double, and of bright scarlet-crimson colour, disposed in bunches like those of Crimson Rambler. The plant is hardy and vigorous. In mentioning this the *Revue Horticole* says that Crimson Rambler seems to be proving an excellent parent, and one that will be of great service to those who raise seedling Roses. Its remarkable floriferousness and hardiness are reproduced in its offspring, and one may hope to obtain from it a new race of Roses of great garden value.

Cyclamen neapolitanum flowering without soil.—Mr. H. M. H. Wulle of Naples records in the *Deutsche Gartner-Zeitung* the pleasing decorative effect that it is possible to obtain by cultivating this Cyclamen without using any soil, simply suspending it in the greenhouse or room by means of wires. Thus treated, the corms produce a quantity of their rosy carmine flowers in September and October. After the blooms are over the corms should be placed in pots or in the open ground, for they will pass through fairly severe frosts unharmed providing that they are put several inches below the soil and are protected by a covering of dead leaves.

Pear Vicar of Winkfield.—When I came here twenty-two years ago I found two trees of the above on a wall 15 feet high facing north-east. My first thought was to cut them down and graft, but consideration suggested the advisability of planting better sorts on a more favourable aspect and retaining Vicar of Winkfield for stewing purposes. They were full of old spurs, some of them quite 18 inches from the wall, but these were gradually worked out and new growth substituted, with the result that for several seasons they have supplied us with a quantity of large fruits for stewing, and occasionally, when thoroughly ripened, a late dish for dessert. These two large trees cover 1,200 square feet of wall space.—E. C. B., *Claremont, Esher.*

A cottage show at Great Warley. Once a year in the grounds of Warley Place, Great Warley, the home of Miss Willmott, there are a cottage show and country revels and games. Unfortunately, the weather was unkind, but the success of the exhibition, and the desire that everyone should enjoy themselves by those responsible for this pleasant celebration, made the happy throng forget the leaden sky and pelting rain of the forenoon. It was the best display that has been held as yet. Instilling into the hearts of the cottagers a love of horticulture and the desire to beat one's neighbour in the tournament of flowers has a wholesome, refining influence on the lives of parent and child. Miss Willmott works unflinchingly to make the cottagers at Warley earnest gardeners, and the wives are encouraged by handsome prizes to compete in classes for bread and cake making, needlework, and the various duties that make the home bright, comfortable, and prosperous. There are prizes also for farm produce, and the whole show is so well managed that the competition in many of the classes was remarkably keen and the exhibits of rare excellence. A few miscellaneous exhibits gave bright colouring to the circular tent, for here Messrs. Wallace and Co., Kilnfield Gardens, Colchester, showed Gladioli, Lilies, hybrid Tritomas, the pretty *Watsonia rosea*, and the new Poppy (*Glaucium flavum tricolor*). Messrs. John Laing and Sons of Forest Hill had a bank of tuberous Begonias, and Messrs. Russell of Richmond, Surrey, trees and shrubs. This was the sixth show that has taken place, and we were glad to see that as the years go by the cottagers' interest

in the various competitions deepens considerably, and we wish that in every parish there was the same guiding hand in furthering the welfare of the people. The work of arranging such a show as this is exacting, and only by the most careful attention to every detail is success possible. Miss Willmott, the president, is helped by the energetic hon. secretary and treasurer, Colonel Whittington, C.B., Codham Hall, and Mr. Preece, Warley Place Gardens, the assistant secretary. The band of the 4th Battalion Essex Regiment played during the sports, which Mr. F. V. Berkeley superintended.

Canada and the schools.—With a wise insistence the Canadian Government continue to press upon the school teachers in the Mother Country the need of a fuller knowledge of the geography and resources of this the greatest of the self-governing States of the Empire, and they are prepared to give practical assistance in this direction by the distribution of a useful geography among the schools. The progress nowadays in Canada is so real and so rapid that the ordinary textbooks, despite the activity of our publishers, become rapidly out of date, and the geography now so generously offered should fill a distinct want, and be warmly welcomed throughout the country. The publication is suitably illustrated with maps, views, and diagrams, admirably adapted for fixing in the minds of the children the facts and lessons which it is so desirable that the rising generation should have of the resources and importance of the British possessions beyond the seas. Head teachers of schools interested should communicate their requirements to the Canadian Government Emigration Offices, 11-12, Charing Cross, London.

Yucca recurvifolia at Broxbourne.—I enclose a photograph of *Yucca recurvifolia*, which may be of service to you for reproduction. It is, as you will see, a rather fine specimen. Its height is 10 feet 2 inches from ground level. This is the third time within ten years it has flowered, but this is the first time two heads of flowers have appeared.—J. PULHAM, *Broxbourne.*

Scottish railway station gardens. The awards in the usual competition for the best-kept station gardens and borders on the Glasgow and South-Western Railway Company's system have just been issued, and the prize-takers are to be congratulated on their success. Some of these gardens and borders have already been favourably noticed by the local Press in their respective districts. One of the first prizes has gone to Ruthwell, where the fine display of Tulips, made by Mr. Macdonald, the stationmaster, was much admired in May.

Eucryphia pinnatifida.—Mr. Bulkeley-Owen sends from Tedsmore Hall, Oswestry, a photograph of a plant of *Eucryphia pinnatifida* that is covered with flowers this year. The shrub is about 13 feet high.

Begonia Mrs. Bertram Currie.—The semperflorens type of Begonia to which this belongs is among the most useful and free-flowering for summer bedding. The variety under notice is one of the best with red flowers. Worth growing for its free-flowering habit alone, the beautiful bronze colour of the foliage adds greatly to its value. The foliage reminds one of the well-known Crimson Gem, but it is not so strong in growth, and more compact and of freer habit. It is readily propagated by division in spring from plants lifted and potted up in autumn. *B. semperflorens alba* and *rosea* are two other good sorts to grow if variety is required.—A. OSBORN.

Discovery of a yellow Snowdrop.—It has just transpired that a Snowdrop with yellow segments appeared in a northern district last season, and that the solitary bulb which produced the flower is being cared for in the expectation that a yellow flower will be again produced next season. It is remarkable that this Snowdrop



YUCCA RECURVIFOLIA IN MR. PULHAM'S GARDEN AT BROXBORNE.

should have been found in the same district as that in which *Galanthus lutescens* and *G. flavescens* were found. As many are aware, these Snowdrops have the markings, ovaries, and scapes coloured yellow instead of green. That which has been found this year has the segments entirely yellow, so that it is quite a remarkable flower, and its future will be looked forward to with great interest. Such a Snowdrop might have been expected to appear, and its existence was less improbable than that of the pink Snowdrop of which there is at least a tradition. My information has come from one of our most experienced specialists in the Snowdrop, and, unless he has been misinformed, which I think hardly likely, the yellow Snowdrop probably will be seen next season.—S. ARNOTT, *Carsethorn, by Dumfries, N.B.*

Preservation of Apples by cold storage.—In a bulletin issued recently by the New York Agricultural Experimental Station was published a report of experiments made in the preservation of Apples by cold storage. It was found that the degree of preservation varied considerably according to the variety of Apple used. It was stated to be most important to handle the fruits with great care. It was further observed that unusually large fruits of a certain variety did not keep so well as those of ordinary size and thicker skin. Most varieties ought to be placed in the cold chamber as soon as gathered. There are, however, some exceptions, for instance, Hubbardston. This Apple is said to keep better, or at all events to keep its appearance better, if two or three weeks are allowed to elapse between gathering and cold storing. Providing that they are healthy, Apples keep better in a slightly moist atmosphere than when the air is quite dry. For this reason the temperature ought never to fall quite to freezing point. It goes without saying that if the fruits were already diseased moisture would tend to hasten their decay.

Diseased Potentillas.—Mr. G. S. Saunders reported as follows on some specimens submitted to him at a meeting of the Royal Horticultural Society: "The diseased blossoms of a Potentilla, exhibited by Mr. Bowles at the last meeting, were attacked by eelworms, and probably by the species which is the cause of the 'Cauliflower disease' in the cultivated Strawberry (*Aphelenchus fragariae*), a disease that has been known to ruin nearly half the crop by rendering the flowers abortive. I am afraid that there is no real cure for this infestation, and that the best thing to do is to burn the affected plants and the soil round their roots. If the plant be a valuable one, it might be of use to cut away all the parts which show any sign of being infested, and to remove as much as possible of the soil round the roots. The following dressings have been found very useful in the case of Clover which was attacked by the 'stem eelworm' (*Tylenchus devastatrix*)—three parts of sulphate of potash, and one of sulphate of ammonia or sulphate of iron."

Hardy Fuchsia Bouquet.—Every now and again, as autumn advances, we see the hardy Fuchsias taken notice of, and their undoubted beauties praised. It may, therefore, not be unsuitable to mention a little hardy Fuchsia which seems to be little known, but which might well be grown in the choicest rock garden. This is a little hybrid called Bouquet, raised originally, I believe, by Messrs. V. Lemoine et fils, Nancy, France, but which I received from Mr. T. Smith, of Newry, eight or ten years ago, and which has since its arrival been grown in the open without any protection. One of its parents is *F. myrtifolia*, and it reminds one somewhat of *F. pumila*, though more erect than that plant. With me it has never attained a foot high, and on the rockery is very pleasing with its small foliage and its drooping coral red sepals and purple corolla. It has proved quite hardy, although generally killed to the ground every winter, and many who have seen it have been greatly attracted by this Fuchsia. I prefer to grow it in a light soil. There are several others of the same parentage, also raised by Messrs. Lemoine, but this is the only one I have cultivated. —S. ARNOTT, *Carsehorn, by Dumfries, N.B.*

A Crystal Palace Rose show.—All lovers of Roses will welcome the announcement that the directors of the Crystal Palace intend holding a Rose show in that building in 1905. Never have there been such Rose shows as were held there in the sixties, and it is to be hoped that all exhibitors will join in making this display a real success. Let them frame their schedule on a broad, unbiassed basis, striving to assist the culture of all types of the Rose and welcoming all exhibitors, both small and great. I would suggest that all such rules as "jars must rest on the staging," and also as to which varieties are admissible as garden Roses, be omitted from the schedule. I am persuaded if the directors offer substantial prizes and medals for the best arranged groups, providing, as they are quite able to do, abundant room so as to avoid the baneful "hunching" now so apparent, they will obtain a good show. As the National Rose Society

select Wednesday for their exhibition, Saturday would be a good day for the Crystal Palace show. This is a very popular day for the majority of individuals, and it would give the small growers an opportunity of seeing a good Rose show which they cannot always obtain if the "Society" day of Wednesday be selected. A supply of suitable vessels, Bamboo frames, &c., should be provided by the Crystal Palace Company, so that the expense to exhibitors of taking such articles about with them would be reduced. As an old exhibitor I wish the company every success.—P.

Pelargonium Black Vesuvius.—I have not met with this singular bedding zonal Pelargonium in catalogues, but it is presumably offered by some one. I do not know of its origin, but doubtless it is a sport from the well-known green-leaved Vesuvius. I saw Black Vesuvius just recently in the Forbury Gardens, Reading, where it is used with good effect by Messrs. Phippen in small masses. The foliage is very dark, hence the appellation. Growth is dwarfer than it is with the old form, and yet the flowers are the same and borne in remarkable profusion. It was by far the most effective bedding plant in the Forbury Gardens, and makes a fine companion plant to that best of all bedding Begonias the double crimson Lafayette. But the practice of crowding bedding plants is wrong and should be avoided. Far more effective and pleasing are nice rounded plants put quite thinly into beds that have a carpet of some dwarf creeping plant.—A. D.

A SKETCH.

There the most dainty Paradise on ground
Itself doth offer to his sober eye,
In which all pleasures pleuteously abound,
And none does other's happiness envy;
The painted flowres, the trees upshooting hie,
The dales for shade, the hills for breathing space,
The trembling groves, the christall running by,
And that which all faire workes doth most aggrace,
The art which all that wrought appeared in no place.

One would have thought (so cunningly the ruder
And scorned parts were mingled with the fine)
That Nature had for wantonnesse ensude
Art, and that Art at Nature did repine;
So striving each the other to undermine,
Each did the other's worke more beautify;
So differing bothe in wills agreed in fine;
So all agreed, through sweete diversity,
This garden to adorn with all variety.
—"Faerie Queene," ii., 12. SPENSER.

Fruit growing in Queensland.—Bananas: There was a considerably greater area under Bananas in 1903 than in 1902, namely, 6,577 acres, against 5,266 acres, an increase of 1,311 acres. There were 47,437 fewer bunches obtained from the greater area however, namely, 1,112,578 bunches in 1903, and 1,160,015 bunches in the previous year, an average per acre of 169 bunches in the former, and of 220 bunches in the latter year. Mourilyan is the chief centre of Banana cultivation, 3,553 acres or 54 per cent. of the total area, and 746,945 bunches, or 67 per cent. of the total production being returned from that district, the average yield in this district being 210 bunches to each acre. Of the additional area in 1903, 1,075 acres, or 82 per cent., were planted at Mourilyan. Cairns was the district of next largest production, but the acreage there was practically the same in both years; from the 1,070 acres under crop there in 1903, 156,977 bunches of Bananas were obtained, an average return to each acre of 147 bunches. Pine-apples: This fruit, which would appear to be less affected by drought than many plants, showed an increase both in acreage and production in 1903. Pine-apples would appear to offer greater possibilities in the way of export than many other varieties of fruit. Packed under ordinary conditions, if care in gathering and casing be taken, it will carry for considerable distances, and arrive in good order. Beyond this, however, the results of experiments would appear to justify the belief that if carried in chilled chambers, under certain conditions, it is not improbable that the fruit may be successfully conveyed to Europe, and thus

become another article of commercial export on a large scale. The experiments in this direction are being continued by officers of the Department of Agriculture. There were 1,493 acres under Pine-apples in 1903, against 1,101 acres in the previous year, an increase of 392 acres. The production last year was 340,832 dozen, and in 1902 it was 260,444 dozen, an increase of 80,388 dozen. The average yield per acre each year was 228 dozen and 237 dozen respectively. Brisbane petty session district embraces nearly half the Pine-apple cultivation and production of the State; by the 601 acres planted there, 155,370 dozen were marketed. A large export trade in Pine-apples with the Southern States obtains.

Southern Counties Carnation Show.—We are pleased to hear from the Secretary (Mr. C. S. Fudge) that the arrangements by which this show is now managed by the Southampton Royal Horticultural Society has worked remarkably well financially and otherwise, the accounts for the late exhibition on the Pier showing a balance of over £19.

Caladium argyrites.—Although during the past thirty years many fine varieties of Caladiums have been raised, the subject of the present notice is still one of the most useful of the family. Being of such a dwarf, compact habit, it can be used where the tall growing kinds are inadmissible. A good many years ago I employed it as an edging in a winter garden, where it had a fine appearance, showing up well against the Selaginellas and Ferns which came into the front rank. An important point in its culture is to get the plants into a fairly root-bound condition before they are used for room decoration. Very nice specimens can be had in 6-inch pots, and where jardinières have to be furnished the decorator will find plants in 2½-inch pots very handy.—J. CORNHILL.

An "American" Balsam.—When at the Peel Institute Flower Show, Clerkenwell, a few days ago, I was informed there was to be seen on one of the floors of a flat plants of an American Balsam, and the cultivator had expressed a desire it should be inspected by the judge as it could not be taken to the show. I found in a back window overlooking a well-like court a box containing three plants or so of *Impatiens noli me tangere*, the strongest of which had produced some blossoms, naturally pale coloured in such a position. But I found it very difficult to disabuse the mind of the cultivator of the idea that he possessed a plant of very great novelty, probably unknown in London. It had been so well cared for and so strongly grown that I awarded it a special prize, which it deserved.—R. D.

THE ALPINE GARDEN CONGRESS AT NAYE.

ON the 16th and 17th ult. some fifty botanists and horticulturists met together on the summit of the Rochers de Naye (Switzerland), at an altitude of over 6,000 feet, to discuss the question of botanical alpine gardens. The garden of La Rambertia took the initiative, calling together the representatives of the following: The three alpine botanic gardens of Lautaret, Villard, and Champrousse, maintained by the university of Grenoble; the alpine garden of Pont-de-Naut, maintained by that of Lausanne; the garden of La Chanousia at the Little St. Bernard (in Italy); of Plan-Gorret at Courmayeur (in Italy); of La Rostania in the Alpes Vaudoises du Piémont by Pinerolo; of L'Allionia on the Monte dei Cappucini, near Turin; of La Cantonniere in the Alps of Bergamo; of La Daphnaea, near Lecco; of L'Aigonal in the Cévennes, maintained by the university of Montpellier; of the Pic-du-Midi (Pyrenees), belonging to the Marchand Observatory; of Etna, belonging to the university of

Catania; of Chasseral in the Jura; of St. Martin-Vesulie in the Maritime Alps, maintained by the French Alpine Club of Nice; of Ballon-d'Alsace, maintained by the Alpine Club of Belfort; of the Vosges, by the university of Nancy; of Gschnittthal, of Schachen, of the Raxalp, and of Neurent—these four by the German and Austrian Associations for the Protection and Cultivation of Alpine Plants, and sustained from the scientific point of view by the universities of Vienna and Munich; finally by those of the Righi and Mt. Pilatus, in course of formation, and the alpine gardens of La Linnæa and La Rambertia, whose president and director, the writer of these lines, undertook the inauguration of this botanical meeting.

Prince Roland Bonaparte, the president, in opening the congress, emphasised the importance, both scientific and esthetic, of alpine gardens. Each delegate of the sixteen gardens spoke, much interesting matter, though needless for reproduction here, being touched upon; but, it should be noted, the garden of L'Aigonal in the Cévennes, whose state was described by Professor Flabault of Montpellier, its founder and director, proves to be the best established of any from the strictly scientific point of view; while that of La Linnæa without doubt shows the best effect from that of artistic and picturesque horticultural beauty.

At L'Aigonal, at an altitude of nearly 5,000 feet, Professor Flahault has taken in some six acres of alpine ground, which he has transformed into a botanic garden. It has been put at the disposal of the university of Montpellier, which keeps up a laboratory upon the ground. One acre is of peat and sphagnum, where already forty species of Ericaceæ are acclimatised. Trials of Pines and forest trees, of vegetables, and pasture plants are also in prospect.

There was an extremely interesting discussion among the representatives of the different alpine gardens. It was decided that in future lists of seeds for exchange should be published, and that the present congress should be followed by others, of which the initiative should be taken by Switzerland.

This international conference was ended by Prince Roland Bonaparte thanking the organiser of this, the first congress on alpine gardens. The garden of La Rambertia at the Rochers de Naye was then visited, and the following day that of La Linnæa at Bourg St. Pierre.

HENRY CORREVON.

THE CLEMATISES.

(Continued from page 154.)

SOME of the best varieties of the patens and florida groups are:

PATENS VARIETIES.

Edouard Desfossé, mauve; Fair Rosamond, white, with red bar; Lady Londesborough, silvery grey; Marcel Moser, white, pink bar; Miss Bateman, white, red anthers; Mrs. George Jackman, white; Mrs. Quilter, white; Sir Garnet Wolsley, pale blue; and The Queen, lavender.

FLORIDA VARIETIES.

Belle of Woking, double, grey; Countess of Lovelace, bluish lilac; Duchess of Edinburgh, double, white; Enchantress, double, white; John Gould Veitch, double, lavender-blue; and Venus Victria, double, lavender.

LANUGINOSA GROUP.

C. lanuginosa is one of the most striking of all the Clematisses. It is a native of China,

and was introduced to this country in 1851, quickly becoming popular. It is a strong grower, with very often large, simple leaves and fine flowers. Individual flowers measure as much as 6 inches or 8 inches across, and in some of the varieties more than that. It will grow to a height of 14 feet or so, and flowers freely from July until October. The sepals are from six to eight in number, and in the type lavender in colour. The following is a selection of varieties: Alba Magna, white; Beauty of Worcester, rich bluish violet, very free; Blue Gem, pale blue; Enchantress, double, white, flushed rose; Excelsior, double, mauve; Fairy Queen, flesh, with pink bar; Grand Duchess, white, flushed rose; Imperatrice Eugene, white, very fine; Lady Caroline Neville, white, mauve bars; La France, violet-purple; lanuginosa alba, white; lawsoniana, rosy purple; Lord Neville, dark plum; Marie Lefebvre, mauve; and Princess of Wales, bluish mauve.

VITICELLA GROUP.

C. Viticella is found in limestone districts of Southern Europe, where it grows in hedges to a height of 12 feet or 15 feet. It has been in cultivation since 1569, and it or its varieties are often found in gardens. The flowers of the type are blue or purple in colour, from 2 inches to 3 inches across, and composed of four sepals. It is a fairly fast grower and free flowerer, blossoming from July until October. Varieties with blue, red, pink, and white flowers are grown, as follows: Ascotiensis, blue; kermesiana, red; Mme. Grange, crimson-violet; Mar-morata, mauve; M. Koster, reddish purple; Viticella alba, white; Viticella rubra grandiflora, red; Thomas Moore, violet; and venosa, reddish purple. *C. Hendersoni* has blue bell-shaped flowers, and is a cross between *C. Viticella* and *C. integrifolia*.

JACKMANI GROUP.

This beautiful and popular group originated through the crossing of *C. lanuginosa* and *C. Viticella* by Mr. Jackman of Woking. The first hybrid was a free-flowering purple, and this he called *C. Jackmani*. Since the production of this numerous varieties have been raised, which show a great variation in colour. *C. Jackmani* is a strong grower and profuse flowerer, the flowers being 4 inches or more across, and borne from July until October. Good varieties are Alexandra, reddish violet; Gipsy Queen, dark purple, very free; Guiding Star, purple; Jackmani alba, white; Jackmani superba, deep purple; Mme. Edouard Andre, bright red; magnifica, reddish purple; Mrs. Cholmondeley, light blue; rubella, rich claret-purple; Snow White, white; Star of India, reddish; and velutina purpurea, very dark plum. *C. Jackmani* has four sepals, but some varieties of it have more.

COCCINEA HYBRIDS.

Within recent years a very pretty race has originated through crossing the scarlet, tubular-flowered *C. coccinea* of herbaceous habit with other forms, the result being strong-growing, free-flowering hybrids, which die to the ground each winter. The flowers are very pretty and semi-tubular. The varieties are as follows: Countess of Onslow, bell-shaped, violet-purple flowers; Duchess of Albany, bright pink, bell-shaped; Duchess of York, delicate blush pink; Grace Darling, rosy carmine, star-shaped; and Sir Trevor Lawrence, bright crimson, campanulate.

The following are some of the more important hardy shrubby Clematisses which have not already been mentioned:

C. aethusifolia is an elegant-habited plant with thin shoots, finely divided leaves, and

small, cylindrical, white flowers. The flowering period is July. A variety known as *latisecta* is grown which differs from the type by reason of its larger lobed leaves. Both are natives of Amurland and North China, and quickly make fine plants.

C. alpina.—At one time this was placed in another genus, *Atragene*, on account of its producing both petals and sepals. It is now, however, considered to be rightly placed in *Clematis*. It is a very distinct and commendable plant, as it grows and flowers well and blossoms during April and May. It was introduced in 1792 from the limestone districts of North Europe, and grows to a height of 8 feet or 10 feet. The flowers are borne singly on long, slender stalks, and are 2 inches to 3 inches across and pale blue in colour. Forms with white and almost pink blossoms are grown, and all are very pretty.

C. apiifolia is a very strong-growing climber from China and Japan, in habit very like *C. Vitalba*. The flowers are small and borne in large panicles during August and September. It is a good plant for a semi-wild position.

C. aromatica.—The fragrance of this species alone warrants it a place in the garden. It is a hybrid between *C. integrifolia* and *C. recta*, grows 12 feet or so high, and bears small purple flowers in profusion during July and August.

W. DALLIMORE.

(To be continued.)

THE FERN GARDEN.

THE OAK FERN.

(POLYPODIUM DRYOPTERIS.)

OF the four native species of Polypodies with deciduous foliage, the *Polypodium Dryopteris*, or, as it is popularly called, the Oak Fern, for which appellation there is no reason, unless it be that it is so named from being sometimes found among the moss about the roots of Oak trees, is undoubtedly the one most generally known, as it also is the one growing most abundantly in a less restricted habitat. On account of the peculiarly bright Pea green colour of its short triangular fronds, which seldom exceed 10 inches in height, and also of its compact and close habit, it is much admired and generally used for forming in the hardy fernery edgings which all the summer possess a freshness looked for in vain among any other Ferns of dwarf habit. These fronds have, when only partially developed, a very peculiar aspect, as the pinnae on each branch are rolled up, resembling so many small Green Peas; they are, like the fronds of all the other Polypodies, produced on slender, creeping rhizomes, which, contrary to those of the evergreen species and varieties, are strictly underground. The Oak Fern is always found in perfectly cool, sheltered, moist places, where the temperature is subjected to very little variation during the summer. In planting the Oak Fern, a spot where moisture and shade can always be depended upon should, if possible, be selected, and a shallow bed made of a compost of two parts of fibrous peat, one part of leaf-mould, and a free admixture of silver sand, or, better still, of broken sandstone. If grown in pots for a cool frame or the greenhouse, where it makes a most pleasing object, the above mixture will be found equally suitable; but in either case avoid putting in too much soil; a depth of from 3 inches to 4 inches is quite sufficient. It is also indispensable that thorough good drainage should be secured, for, although the growing plant delights in an abundant supply of water, yet water remaining about its roots is very injurious to it. In planting, great care must also be taken to prevent the rhizomes being buried too deeply, in which case they seldom grow; they must be only just below the surface of the soil, which should only cover them lightly, and through which it is

advisable to let the tips protrude. After the planting—which should take place about April—is done a moderate watering must follow, after which the soil requires to be kept constantly moist until the new fronds begin to unfold, when, as they increase in size, a fresh supply of water will be necessary to keep the atmosphere always moist about the plants. This Polypody is readily increased by division. Although totally deprived of foliage during four or five months of the year, the Oak Fern should never be allowed to get dry at any time, for the rhizomes soon shrivel up and the spring growth then only produces small or deformed fronds, and the plants are very much weakened. It is also advisable to give plants grown in pots a slight covering during the winter, though not requiring the same attention when planted out. This species does not appear to have produced any constant variations. Several multifid and other curious forms of it have from time to time been noticed, but none of these remained constant under cultivation.

NELUMBIUM SPECIOSUM.

ONE of the most noble of aquatic plants, the genus *Nelumbium*, contains only two species, *N. speciosum* of Asia and tropical Africa, and *N. luteum* of the West Indies and Southern United States. The latter, although accorded specific rank, is probably only a geographical variety, differing little from *speciosum*. Upwards of a dozen specific names have been given to forms, which have since proved to be varieties of *speciosum*, differing from it chiefly in the colour of the flower. To our Continental neighbours we are indebted for most of the beautiful varieties now in cultivation. Formerly considered as hot-house plants exclusively, they are now cultivated outside, not only in heated tanks, but also in sheltered spots, protected from north and east winds, and where the full benefit of the sun can be obtained. A mixture of rich loam and well-decayed manure is the most suitable compost in which to grow them. Under glass their cultivation is easy. Planted a few inches below the surface of the water, when once started growth is very rapid. When commencing their cultivation outside the rhizomes should be started under glass, in pots or tubs submerged a few inches below the surface in a tank. When growth begins, if the weather is suitable, say towards the end of May or early in June, the tubs should be transferred to their summer quarters or planted out if that is the method of growth intended. Protection should be given at first if the nights are cold. If planted permanently outside they should be covered by at least a foot of water. When growing in tubs arrangements can be made for lowering them in the water, or transferring to a house in winter. Should the position permit of it, a frame may be placed over and covered with leaves; where the tanks or ponds are heated these precautions are, of course, unnecessary. Still, water is by far the most suitable. Positions near springs should be especially avoided, the water being much colder. *Nelumbiums* are well worth cultivating for their foliage alone. The leaves are peltate, glaucous green in colour, borne on slender stalks 4 feet to 6 feet in height. Rising well above the foliage the flowers are produced on separate stalks. They vary in colour from white to deep pink and are beautifully scented. Long

known as the Egyptian or Sacred Bean, both the rhizomes and seeds are eaten by the natives in the East. A. OSBORN.

THE FLOWER GARDEN.

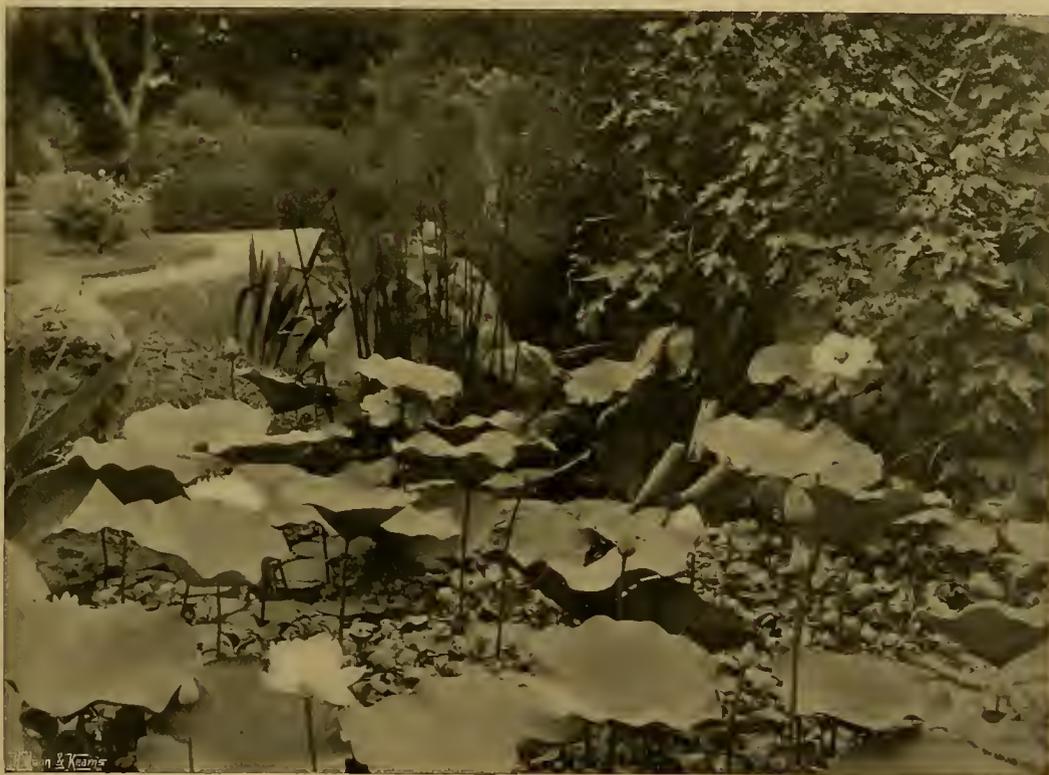
HALF-HARDY ANNUALS IN 1904.

IT adds much to the interest of amateur gardening not only to try each season some of the lesser-known annuals, whether hardy or half-hardy, but to attempt different modes of growing them. They come in most usefully either for pot or basket culture, or as single plants or groups to fill vacant spaces in the perennial borders, with this great advantage, that they may be cleared away without compunction the moment their presence becomes undesirable. That capital South African annual, *Arctotis grandis*, which has been commended before now in the pages of THE GARDEN, has flowered even more freely this season than last, showing that a dry summer

them up so quickly that it proved to be scarcely worth while to provide pot room for them during winter, when space is precious.

Seed came to me from South Africa of a blue-flowered annual which proved to be *Wahlenbergia capensis*. Like several of the *Campanulas* and their allies it evidently prefers shade and resented exposure to full sunshine out of doors. It is not showy, yet its blue salver-shaped flowers, curiously tinged with green, with touches of black, are interesting and uncommon-looking, and as it seeds freely it might be worth taking in hand by the hybridist for the sake of novelty and improvement. The place for it would seem to be either a hanging basket under glass, or a semi-shaded wall where the long flower-stems might droop at will and turn up their ends to the light. While there are many better-known plants of greater merit, it was distinctly pretty in the spring in a cold greenhouse, but is useless for the ordinary flower border.

A half-hardy annual seldom seen, but of distinct character—*Statice Suworowi*—has done well this year in spite of the dry season. It



NELUMBIUM SPECIOSUM IN THE BARRAGE GARDENS IN EGYPT.

does not disagree with it, which might fairly be foreseen. One strong point in its favour is the length of time during which it lasts in vigour, continuing to flower until late autumn. The long stems make it also useful for cutting, though, like many composites, the flowers close during part of the day. The somewhat straggling and brittle branches make staking necessary, as they are liable to get broken or twisted in a strong wind, but this detracts little, when precaution is taken, from its value in the mixed border, yet it seems to be only gradually making its advance into public favour, as it is new to most visitors to my garden. The experiment of autumn sowing was tried last year with this *Arctotis* in hopes of getting it into flower early under glass, but, though they threw well, the spring-sown seedlings caught

begins to flower at a very early stage, and, on first making its acquaintance, one might very easily be inclined to pull it up in disappointment to make room for something better. Wait a bit, however, and by and by, when its pretty tapering plumes of minute pale pink flowers are fully developed, it will be found well worth the space it occupies. A figure of this Central Asian *Statice* is given in "Nicholson's Dictionary of Gardening," but it does scant justice to its slim elegant growth. It is summer flowering, and therefore makes way by the end of August for any plants kept in reserve for filling vacancies.

Alonsoa Warscewiczii, a slender-growing Chilean *Linariad* with many branching stems, is very fine during August, and will last well into autumn. It is probably herbaceous, but succeeds

admirably treated as a half-hardy annual, and cuttings strike easily. The peculiar rosy scarlet shade of its shield-shaped flowers is very taking, and the long spikes are light and graceful. A well-grown mass of this *Alonsoa* is exceedingly bright and handsome when care is taken to group it effectively. The colour naturally harmonises ill with strong orange and yellow tints.

A word should be said in praise of the very fine form of *Tropeolum lobbianum* Princess Louise Victoria, which is well worth a special place in the outdoor garden, and also to grow for winter flowering in the conservatory. It stands, besides, the ordeal of being brought into and kept in warm rooms better than many plants. It varies a trifle from seed, but, in the best form, the foliage is dark and makes an excellent foil to the pale sulphur-coloured flowers, each petal having a small but vivid scarlet blotch and the beauty of the whole plant being greatly enhanced by the deep scarlet calyx and spur of the flowers. A seedling plant growing over a stump out of doors last summer was so decorative that it was thought worth while to root a cutting to preserve the identical form. This was trained up a stick, and with drooping branchlets grew into a shapely pot plant. Given a post of honour on a carved Oak pedestal in the drawing-room no one recognised it as a "mere *Nasturtium*," and it was greatly admired. After doing duty through the earlier part of the year in the house and conservatory it was planted out in the open border, where it took a new lease of life and so covered itself with flowers once more that a neighbour exclaimed on seeing it: "What is that very beautiful flower?" An untoward accident soon after put an end to its existence, but fortunately both growing cuttings and seeds are still extant. Garden beauty lies very near us sometimes while we sigh for costly exotics. No Orchid could be more perfect than this *Tropeolum* in its own special way, and any one can grow it with the minimum of pains and care at the cost of a threepenny packet of seed. It is quite possible that a plant propagated by a cutting may be more short-jointed and better suited to pot culture than a seedling, but it can easily be tried in both ways, and a note should certainly be made of *T. Princess Louise Victoria*, that it may not be omitted from one's list of spring seeds. K. L. D.

AGAPANTHUS UMBELLATUS IN THE FLOWER GARDEN.

This fine plant is certainly worthy of more attention than it often gets. Where it is grown well it is certainly most effective. It is very beautiful in the gardens of His Grace the Duke of Devonshire, at Compton Place, Eastbourne. Grown in large tubs, the plants have grand umbels of rich deep flowers well set off by strong healthy foliage. A number of large plants were standing round the flower garden in front of the house and formed a nice contrast to the other flowers in the beds. Although a plant which will live under almost any conditions, it well repays for a little care. Plants are often left to get too much crowded with growths, but when divided and given plenty of pot or tub room they make larger leaves and finer heads of bloom. The white variety is also very pretty, but not so vigorous in growth. The variegated variety is also worth attention. I believe there are several different varieties of the blue. Those at Eastbourne were of the richest blue, with large heads of bloom, probably the variety known as *giganteus*. H.

PELARGONIUM PAUL CRAMPÉL.

This *Pelargonium* well merits all that is said in its favour on page 119; indeed, as a bedding plant it stands head and shoulders above its fellows—not

in height, it is true, but in attractiveness. Various ways of spelling the name are to be met with, but the above is the correct one. This variety was distributed by that well-known hybridist, M. Lemoine of Nancy, in the year 1892, but some time elapsed before its merits were fully recognised. Now, however, its cultivation is very general, as it is one of the recognised varieties largely taken into Covent Garden Market during the season and universally used for bedding, at least in the London district. It is by no means the only popular variety that took some time to attain the position it merited from the first, for the double-flowered scarlet *F. V. Raspail* was first sent out as long ago as the spring of 1878, but it was almost lost till a few years after it attracted the attention of some of our market growers, and it then became popular at once. Like the variety *Paul Crampel*, this also emanated from the far-famed establishment at Nancy, the birthplace of so many plants of all sorts now universally popular. In passing through Hyde Park on the evening of the 22nd ult., after a heavy thunderstorm, a bed of *Paul Crampel* was little the worse, while all the other sorts were considerably damaged. T.

This is undoubtedly one of the finest introductions of late years, and is likely to last as long in favour as such sorts as *Raspail*, *Jacoby*, *West Brighton Gem*, and others. It is inclined to make extra strong growth if the soil is very good, but the extraordinary size of truss makes up for a little deficiency in freedom of flowering. A wonderfully bright bit of colour is furnished this year by a combination of this *Pelargonium* facing and between clumps of white *Marguerites*, which in their turn are backed by well-coloured bushes of *Prunus Pissardi*. E. L. BURRELL.

KOCHIA SCOPARIA.

I HAVE always entered a protest against the use of things of somewhat stiff and formal habit in the flower garden, but must make an exception in favour of the above, probably one of the most unique half-hardy plants we have. Sown the third week in March and planted out early in June the plants are now 30 inches high and about 15 inches in diameter. The flower is quite insignificant, reminding one, strange to say, a little of the tiny blooms that appear in early spring on either side of the pendant flower-stalk of *Pterocarya caucasica*. I was somewhat puzzled how to use the *Kochia*, and decided to do so as a dot plant on carpets respectively of *Begonia Lafayette*, the variegated *Mesembryanthemum*, and a very dwarf *Ageratum*, and in either case the effect is very pleasing. This *Ageratum*, by the way, seems very little known. It only grows 3 inches in height, and is the best dwarf blue bedding plant we have apart, perhaps, from the blue forms of *Tufted Pansy*, but it possesses the advantage over the latter of flowering right away till October irrespective of the driest weather. E. L. BURRELL.

OUR BOTANIC GARDENS.

BOTANIC GARDENS, BELFAST.

ALTHOUGH only of small area—seventeen acres—these gardens are full of interest. They were opened by a company in 1820, and were purchased by the Corporation in 1895 at a cost of £10,500; since then, at a considerable outlay, their attractiveness and usefulness have greatly increased. The department that has been planted expressly for the use of students of botany has been perfected. The glass is not extensive, but Mr. C. W. McKimm, the superintendent, has got together a choice collection of plants. The show range contains Palms and other ornamental plants. One wing devoted to stove and temperate plants is full of interest by reason of the many flowering plants there; for instance, *Aristolochia elegans*, *A. ornithocephala*, *Passiflora cœrulea*, *P. macrocarpa*, *P. quadrangularis*, *Clerodendrons* in

variety, *Bougainvillea Cypheri*, *Gloriosa superba*, *Tecoma jasminoides*, *Strelitzia Regina*, and many others; *Lygodium scandens* filled a large amount of root-space. The other wing is devoted to greenhouse plants, and was bright with *Begonias*, *Geraniums*, *Fuchsias*, &c., while at each end were masses of blue and white *Plumbago capensis*. The fernery is about 140 feet long and 70 feet wide, and differs from most structures of this kind; it is in the form of a river bed, and the visitor views the same from galleries running along each side some 30 feet from the base; this gives one a view of the tops of the largest plants. The Ferns are planted in irregular mounds upon a groundwork of *Selaginellas*, *Fittonias*, small Ferns, &c. Among notable plants are *Dicksonia antarctica*, *Cyathea dealbata*, *Cibotium Schiedeii*, *Musa Enseti*, *Ficus* of sorts, *Clethra arborea*, *Latania borbonica*, *Cycas revoluta*, *Phoenix dactylifera*, *Coccos nucifera*, *Nepenthes hookeriana*, *N. masteriana*, *N. coccinea*, &c. At one end of the house there is a tank in which *Victoria Regia* grows splendidly, the largest leaf measuring 7 feet in diameter. At the time of our visit a flower was open.

In the grounds the grass is beautifully green; the bedding consists largely of foliage plants, making most effective beds, while clumps of Bamboos some 8 feet or 10 feet high add not a little to the effect. The Rose and water gardens are of much interest; the former is about to be extended, when it is the intention of Mr. McKimm to introduce pergolas, arches, &c., in addition to the usual beds and borders. Some six parks, in all 300 acres, are under the care of the superintendent, and it is safe to suppose that all are as well cared for as the Botanic Gardens. W.

NOTES ON HARDY PLANTS.

FAILURES WITH SWEET PEAS.

SWEET PEAS were a subject for discussion at the August meeting of the National Amateur Gardeners' Association, the chief point being their habit of failing just when they should be at their best. It was pointed out that the plants quite unexpectedly began to turn yellow, and upon close inspection a "plant rust" seemed to have settled on them. No one was able to suggest a definite remedy for the disease, and the recommendation from a well-known seedsman of an application of sulphate of copper to the roots was not regarded with favour. It was suggested that it would be well in the early summer to anticipate the failure of the plants, and if possible apply an insecticide of some sort as an antidote. By these means the plants might be saved from the "rust." Planting in clumps *versus* planting in rows was freely commented on, and the feeling of the meeting appeared to favour the former way. One member suggested using the twigs of Birch brooms, with which to stake the young plants, either in pots or after planting them outdoors. He recommended this as a cheap and satisfactory method of staking when the plants were young. Another member, an experienced and successful cultivator, said there was no better material for staking the young plants than the old stems of the *Michaelmas Daisies*. Most of these are branching—just what the tightly clinging tendrils need. Subsequently the plants would be supported with long and branching stakes, which the smaller ones so well lead up to. D. B. C.

CAMPANULA PYRAMIDALIS.

This plant receives special attention at Compton Place, Eastbourne. Over the portico was a wealth of pink Ivy *Pelargoniums*, and at the back of these *Campanulas*, both blue and white, with dense spikes of bloom 4 feet to 5 feet high. The plants represented a carefully-selected strain, the flowers being of great size, and those of the blue a very clear shade of colour. I have found in growing this *Campanula* that its chief requirements are plenty of pot room, a rich loamy compost, firm putting, and a light airy position, with just

sufficient warmth to keep off frost in winter. After the pots are well filled with roots manure water may be given freely. It will be hardly possible to treat them too liberally. After the flowers begin to open a slightly shady position will lengthen the time of flowering. They are best when treated as biennials. Seeds sown early in the season make good plants for the following year.

A. HEMSLEY.

THE PARNASSIAS, OR GRASS OF PARNASSUS.

IN many of our moist heaths and bogs the Marsh Parnassia (*P. palustris*) is not unfrequently met with, and a very pretty plant it is—quite handsome enough to cultivate, particularly in gardens in which there is a suitable moist spot where it could grow as in its native haunts. There are, however, three other species, natives of North America, that are quite as showy as our native species, and the newest kind (*P. fimbriata*) is even more attractive, as it has larger flowers, with peculiar fringe-like appendages to the petals. It has kidney-shaped root leaves, resembling those of *P. asarifolia*, another hardy species, which grows about 9 inches high, bears similar white flowers, but without the singular fringes to the petals. The Carolina Grass of Parnassus is the other species, and this only differs from *P. asarifolia* in the leaves being oval or heart-shaped; it also flowers about the same time, which is usually from the beginning of July till the end of August. These Parnassias thrive best in a moist, peaty soil or spongy bog, such as exists by the sides of streams or pools, and, being all perfectly hardy, give no trouble after being once planted. W.

DWARF PURPLE SCABIOUS IN POTS.

THE cultivation of hardy and half-hardy annuals in pots for conservatory decoration is not practised to the extent it should be, or as it profitably might

be, for they are extremely useful in autumn and winter when but few other plants are available. Few prettier subjects can be grown than the purple Scabious, especially the dwarf strain lately introduced.

The plants, being dwarf and compact in growth, are well suited for pot culture, and they produce an abundance of flowers for several months in succession. For cutting purposes, too, the flowers are very desirable, as they last a long time in perfection in a cut state. The colour varies from the deepest crimson-shaded maroon to pale pink, so that in a packet of seeds many intermediate shades may be obtained. We have never seen this dwarf Scabious so well grown as at Gunnersbury Park, it being a special favourite with Mr. Roberts, who grows it extensively. He grows it in the open air in summer for cutting purposes, and in pots for conservatory decoration and cutting in the autumn and winter, and he thus obtains an uninterrupted supply of flowers for several months. For flowering in the open air the seeds may be sown in spring in the ordinary way. For flowering in pots the seeds should be sown at intervals in spring and summer in heat or otherwise, and the seedlings either grown on in pots or planted out, but in either case they should receive no check, but should be grown freely on till they are placed in the pots in which they are to flower. Thus treated they cannot fail to give satisfaction, and will be found extremely useful. W.

THE MOURNING IRIS (*I. SUSIANA*).

IRIS SUSIANA, represented in the accompanying illustration, has always been a favourite of mine, and there can be no question as to the greater vigour and freedom of growth compared with the majority of *Oncocyclus* Irises, and the flowers are by far the largest in this beautiful group. In colour they are a silvery grey, so closely set with dark lines that the flowers appear sombre tinted, yet showing wonderful gradations of colouring in



A GROUP OF *IRIS SUSIANA* (THE MOURNING IRIS) AT COLCHESTER.

look upon *I. susiana* as a plant he can grow almost anywhere, requiring none of the skill necessary for the others.

Colchester.

R. W. WALLACE.

THE VIOLET CRESS.

(*IONOPSISDIUM ACAULE*.)

ONE of the most interesting plants in many a flower garden in spring is this charming little Portuguese annual, whose dense tufts, not 2 inches high, of violet flowers spring up in all directions where plants of it have existed the previous season, for, like a common weed, it sows itself, thereby possessing all the advantages of a hardy perennial and causing no trouble whatever after being once introduced. Its peculiar beauty adapts it for various purposes and positions. On rockeries, associated with even the choicest of alpine plants, it holds its own as regards beauty, and it never overruns or otherwise harms its neighbours. It is particularly suitable for sowing near pathways, rugged steps, or similar positions, places in which it grows freely; indeed, it would even flourish on a hard gravel walk, so freely does it grow. It also makes a pretty plant for the greenhouse or window, as it thrives well in pots, either sown in them or lifted in flakes from the open ground and placed in them. It flowers in a couple of months after sowing, and often produces a second crop of blossoms in the autumn. W.

TREES AND SHRUBS.

LAWN TREES.

MANY admirable trees for small lawns can be found in those that combine sufficient density of foliage to afford a welcome shade with a fine display of flower and serviceable fruit. Strong-growing varieties of Apples, for instance, that make shapely trees, of which Cornish Aromatic, Scarlet Nonpareil, Beauty of Kent, Hambleton deux Ans, Blenheim Orange, and Brownlee's Russet are half-a-dozen examples, may be planted with advantage, and so may the Mulberry, the Medlar, and the Siberian Crab. Recent notes on Magnolias may tend to popularise these highly ornamental trees and lead to their occasional planting in situations where they would look remarkably well; some of them are very handsome and different to anything else we get in English gardens. They attain very fair proportions. *Paulownia imperialis* and *Zelkova acuminata* may also be named as small trees with handsome deciduous foliage. The plea for greater variety in planting (and is it not needed?) so far as the smaller trees are concerned, which was the object of this note, might safely be extended to trees of larger size. No one would wish to debar our stately specimens of Oak, Beech, and Chestnut, but a walk through many pleasure grounds shows that the rarer deciduous trees, often with highly ornamental foliage, are seldom met with. Fine old specimens of the Tulip Tree are to be found in many gardens, but younger trees are seldom met with, an omission which if not speedily rectified will leave the majority of our gardens without any decent examples of this handsome tree when the old ones have died out. The foliage peculiar severally to such trees as *Ailanthus glandulosa*, *Gymnocladus canadensis*, *Magnolia acuminata*, and *Pyrus Sorbus* should secure them a place in all large collections, and all grow into handsome trees averaging from 50 feet to 70 feet in height. I must not forget a good word for the deciduous conifer *Taxodium distichum*, a very handsome tree, but, unfortunately, tender when young; the leader is very apt to be crippled in severe winters, and all side growths die back. This is, I imagine, the reason why nice shapely young plants of this *Taxodium* are not easily obtainable. E.

BERBERIS DARWINI.

WHAT a fine thing this is when seen at its best! In low-lying situations, where the soil is retentive,

it is by no means happy, but where the natural staple is light and well drained there should be no difficulty in inducing this charming flowering shrub to take on perennial vigour and beauty. There is probably no fairer garden picture than a well-developed specimen when in full bloom, the habit being graceful, and the bright orange blossom contrasting so finely with the deep green foliage. Some years ago a plant in the cutting stage was placed in a narrow border at the east end of a glass house. Soil and position have evidently suited it, but the principal factor in its welfare is undoubtedly the good drainage, for it happens that this is one of the driest spots in my place. Every season this plant is a perfect picture; it is simply smothered with bloom, and the foliage is perfect down to the ground. In heavy soils a top-dressing of peat or leaf-soil now and then will prove beneficial.

J. CORNHILL.

BOLD WATERSIDE PLANTS.

PLANTS that grow by the waterside, so much admired in natural scenery, are seldom taken advantage of for cultivating as they might be, otherwise the bare water edges so often found in connexion with lakes and other ornamental water would be of less frequent occurrence than they are. With the vast resources of suitable plants at our service, if appropriately employed, the margins of artificial water might be made to surpass even the choicest examples of natural riverside vegetation. In the majority of cases, if the edges of artificial water are clothed at all, they have a monotonous appearance on account of the continuous fringes of plants of a commonplace type used, whereas if a greater variety of kinds of varied height, habit, and flower were employed and disposed in bold irregular groups—some close to the margins, others at a distance from them, and some even partly submerged—some of the most charming effects could thereby be obtained. The principal consideration is a knowledge of the positions in which the plants thrive best, the degree of moisture in which they will flourish; then grouping them effectively is easily accomplished. The following enumeration consists wholly of vigorous growing plants that when once planted can take care of themselves. Our native flora affords great numbers of really handsome waterside plants, many of which are in no way inferior to exotic kinds. Amongst the showiest are the

WILLOW HERBS (Epilobium).—These, being well known, need but little description. Of the former *E. angustifolium* is the finest. In rich, moist soil it grows 5 feet or 6 feet high, and in summer is covered with a profusion of showy purple-red flowers. There is a white variety which is even

more effective than the type, as the colour is so uncommon among water plants. The great Willow Herb, or Codlins and Cream (*E. hirsutum*), is a true water plant, and though not showy as the preceding, should never be omitted. Also of the Purple Loosetrife (*Lythrum Salicaria*) there are now some extremely fine varieties; one, named *superbum*, may be said to be the finest of all hardy flowers, and all the *Epilobiums* are excellent companions for our beautiful native Meadow Sweets (*Spiræa*).

Many of the Grasses of the larger type flourish better in moist places near water than elsewhere. One of the handsomest is the

GREAT REED GRASS (Arundo Donax), which grows 10 feet and even 15 feet in height when planted near the margins of water where the roots are continually moist. It requires, however, a rather sheltered position, as it is apt to be injured by severe cold or cutting winds. A bold, isolated group of this noble Grass is one of the fairest types of hardy vegetation which we possess, yet, singular as it may appear, it is often overlooked.

THE NEW ZEALAND REED GRASS (Arundo conspicua), as well as the Pampas Grass (*Gynerium*

5 feet, with broad leaves and handsome plumes from 6 inches to 8 inches in length—all interesting when properly planted. There is a variety of this with variegated leaves called the Ribbon Grass or Gardener's Garters. Among the choicer exotic Grasses of large growth are *Eulalia japonica* (5 feet high), *Gymnothrix latifolia*, *Erianthus Ravennæ*, *Stipa gigantea*, *Sorghum halepense*, and *Andropogon strictus*, all of which delight in moist situations.

BAMBOOS.—There is no other type of hardy plants from which such beautiful effects can be produced by water margins as from the various kinds of Bamboos which thrive so finely in our climate. Planted by the side of a running stream, or near the margin of a lake or pool, they succeed better than in any other place, and soon attain a great height.

SEDGES AND RUSHES.—The majority of the former are essentially water plants, and many of them form beautiful objects when planted in bold groups. For this purpose some of the finest and most suitable are, among *Carexes*, *C. paniculata*, a native species, which grows into luxuriant tufts as high as 4 feet if planted in wet, boggy places in

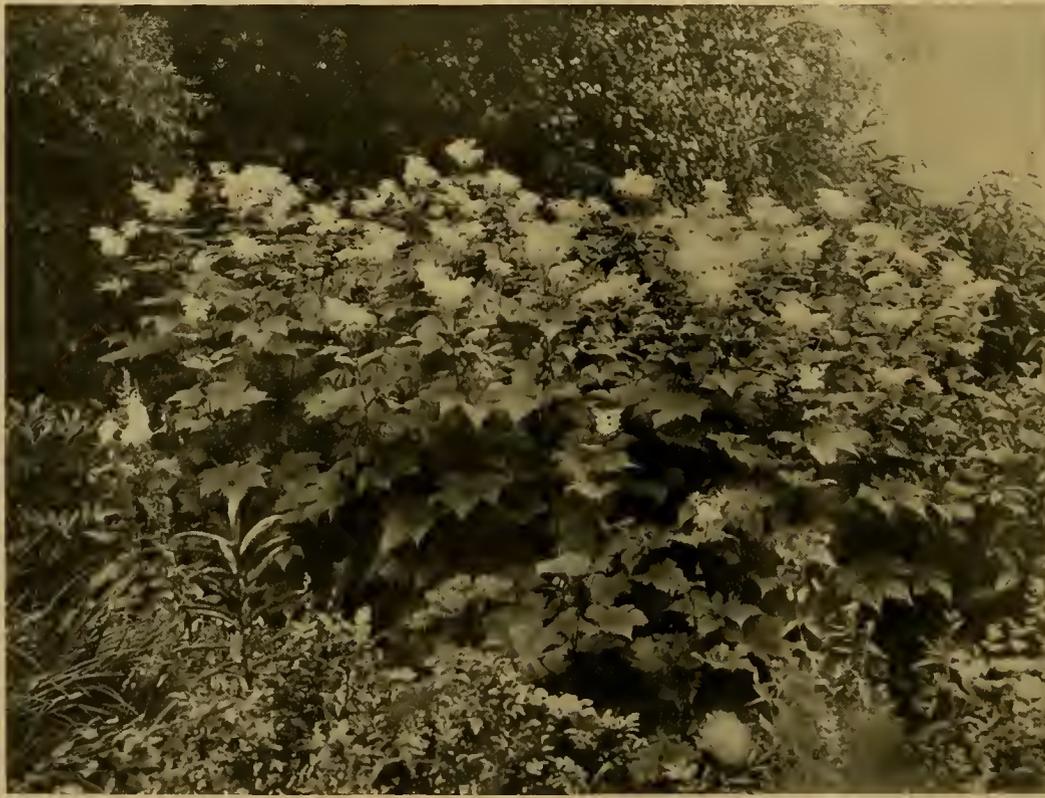
which little else will grow. Then there is the extremely graceful *C. pendula*, one of the largest of our native *Carexes*, with its long, catkin-like spikelets, produced in early summer on plants 3 feet high. The Fox *Carex*, as well as *C. acuta*, are likewise well adapted for wet places, each attaining 2 feet or 3 feet in height, and of *C. acuta* there is a handsome variety with variegated foliage. There is also a variegated-leaved variety of *C. riparia*, which is very handsome and retains its character well, even in water.

One of our handsomest native water-loving plants is the Galingale (*Cyperus longus*), whose stout stems, terminated by singular tufts of leaves, attain a height of even 4 feet or 5 feet. As it flourishes best when its lower part is wholly submerged, it is a

capital subject for planting in shallow water at a little distance from the margin. When disposed in bold groups, and these not repeated too often, it greatly relieves the somewhat monotonous appearance of an even fringe along the water's edge. Another fine *Cyperus* is *vegetus*, which has wider leaves than the last and lighter green in colour, but it does not grow so tall. Nearly allied to the *Cyperuses* are the

CLUB RUSHES (Scirpus).—*S. triquetus* (3 feet high), *S. lacustris* (from 4 feet to 8 feet high), and *S. Holoschenus* (a stiff Rush-like plant some 3 feet high) are all excellent waterside plants. Of similar growth is the Prickly Twig Rush (*Cladium Mariscus*), which is useful for planting in poor and wet soil where little else would thrive.

IRISES.—In addition to the common yellow Flags (*I. Pseudacorus* and *foetidissima*) several of the other kinds make good water plants, particularly



THE BEAUTIFUL SPIRÆA GIGANTEA.

(This is one of the noblest of the Spiræas, 7 feet or more in height, and the flowers are in creamy clusters. From a photograph by Miss Willmott.)

argenteum), flourish by water far better than in other positions, provided there is not an excessive amount of stagnant moisture about the roots. One or two kinds of Lyme Grass (*Elymus*) are excellent for planting in wet places where choicer plants would not flourish, the most suitable being *E. giganteus*, which grows some 4 feet or 5 feet high; *E. virginicus* and *canadensis*, both North American species of tall, vigorous growth. Some of our British Grasses of noble aspect look well if planted in distinct groups and not allowed to run in a monotonous fringe. The best of these are the common Reed (*Arundo Phragmites*), which abounds in many parts in wet ditches; the Wood Small Reed (*Calamagrostis Epegeios*), which grows from 3 feet to 4 feet high and flourishes as well in open, wet places as in woods and thickets; Purple Small Reed (*C. lanceolata*), taller than the last; the Reed Grass (*Digraphis arundinacea*), from 3 feet to

I. sibirica, a tall-growing kind with glossy foliage and flowers either of a rich purple or white. The beautiful Kämpfer's Iris, too, though not of large size, must be included in our list, as it flourishes best in wet places, and if such a position could be allotted to it where the water now and then could be made to flow over the soil for 1 inch or so in depth, it would, if planted in a peaty soil, flourish far better than in an ordinary border.

Among plants remarkable for fine leafage few excel the large Water Dock (*Rumex Hydrolapathum*), the leaves of which grow nearly 3 feet long, and they are nearly 1 foot across, reminding one of a Bauana plant in miniature. In some situations it grows as much as 5 feet high, and forms a bold plant close to the water's edge, where the roots would be continually submerged.

THE GREAT SPEARWORT (*Ranunculus Lingua*) is another of our bold foliage native plants which grow from 3 feet to 4 feet high, and has long, broad leaves of a pale green colour. Its flowers are showy, being of a bright shining yellow, and more than 1 inch across. A position similar to that recommended for the last suits it best. W.

(To be continued.)

ROSES—PAST, PRESENT, AND FUTURE.

BY THE LATE DEAN HOLE.

FOR many years after the institution of Rose shows (it was my privilege to suggest and to organise the first of them, in the year 1858) the zealous rosarian restricted his attentions almost exclusively to those varieties which won the prizes as being the largest and most compact. Irregularity of outline, confusion or paucity of petals, seemed to shock his sense of propriety and to bring him positive pain. He regarded them with mingled feelings of disgust and pity, as though they had been Barnum's "freaks." Nevertheless, the love of that which is really beautiful, in whatever form or degree it comes, has always a growth in grace; it educates the understanding, refines the taste, opens the eyes, and enlarges the heart until there is room in it for every flower, whether it be the magnificent specimen, in its zinc tube, embedded in moss, at the show, or Little Dot in the border, or the wild Rose in the hedge. The proofs of this expansion are manifest, not only in the comprehensive collections of the true rosarian who has the power to add to their numbers, but in the special prizes offered by the National Society for "garden Roses," which had been so long ignored. There is, indeed, a more general interest in these less-pretentious flowers, which will grow in any garden, and do not require a large outlay or an elaborate preparation, as with Roses intended for show; but I pity the spectator who does not admire them all. One star differeth from another star in glory, but all are glorious; and just as

"The floor of Heaven

Is thick inlaid with patines of bright gold,"
so here below in our English gardens we have our splendid display of Roses, infinite in their variety of colour, fragrance, and form.

It is not within the compass or intention of this article to give

complete lists or elaborate descriptions, but a few brief annotations with reference to the *élite* may be acceptable to those who have not the writer's experience. Never had poet such a vision of beauty, such a "Dream of Fair Women," as this presence of ladies in Queen Rosa's Court. Never were such complexions seen at a Drawing-Room as these, which no art can copy on the canvas or on the cheek. Never were diamonds so brilliant as these dewdrops, glittering in the sun. All the bloom, all the foliage, is their own.

When I was asked to name the twelve Roses which during my cult of half a century have

evoked on their first appearance in our gardens—the greatest delight and admiration, I selected—

General Jacqueminot	raised by	Roussel	in	1853.
Gloire de Dijon	"	Jacotot	"	1853.
Charles Lefebvre	"	Lacharme	"	1861.
Marie Baumann	"	Baumann	"	1863.
Maréchal Niel	"	Pradel	"	1864.
La France	"	Guillot	"	1867.
Catherine Mermet	"	Guillot	"	1869.
Comtesse de Nadaillac	"	Guillot	"	1871.
Marie van Houtte	"	Ducher	"	1871.
Her Majesty	"	Bennett	"	1885.
Mrs. John Laing	"	Bennett	"	1887.
Crimson Rambler	"	Turner	"	1893.

And when curiosity proceeded to enquire



AN ENGLISH WATERSIDE—SPIRÆA GIGANTEA BOLDLY GROUPED IN THE DISTANCE.

(From a photograph by Miss Willmott.)

"If you might have only four, which would you choose?" I replied, "Regarding quantity as well as quality, I should prefer Gloire de Dijon, La France, Mrs. Laing, and Marie van Houtte." But when my insatiate examiner requested me to imagine myself in the awful position of a man permitted only to possess one Rose, and to name my choice, I could only tell him that reason would fail under such an ordeal, and that burying my head in a bush of La France, I should

"Die of a Rose in aromatic pain."

Video meliora proboque: it will be more agreeable to retain those which I possess, and to extend rather than diminish my commendations. Beginning accordingly with those Roses which are most conspicuous in our gardens, covering our walls, arbours, pergolas, pillars, and fences, my memory takes me to a time when our examples were a prosperous but limited company. The most charming of all the climbing Roses, Chromatella or Cloth of Gold, was in existence, but only flourished in a few favoured spots. The Banksian, white and yellow, were abundant on sunny walls, and pleased those who had not seen them in more congenial climes with their scanty efflorescence. Fortune's Yellow, so abundant and attractive under glass, eked out a precarious existence *al fresco*. It assumed the appearance of green and yellow melancholy, which may be observed in politicians out of office, anxious but unable to get in.

At the same time, we had several of these rambling Roses, which were to be admired for their vigorous constitutions as well as for their foliage and flowers, which were of "rampant" growth, mounting our walls almost as rapidly as Jack on his Beanstalk, and defying our thunderstorms, fogs, and frosts. These were the Ayrshire and Sempervirens, with their glossy and pretty clusters of buds and flowers; the Noisette, Aimée Vibert, "clad in robes of virgin white"; the fragrant pale yellow Lamarque, beautiful in health, but liable to catch cold and to succumb to a chill if misplaced in exposed situations; and Solfaterre, with its large golden yellow flowers demanding and deserving a congenial site, a fertile soil, and the gardener's generous care. The Bour-sault Roses, Amadis (dark crimson), and Gracilis (bright rose), were robust in growth and effective (at a distance), although the flowers were of brief duration; but the most successful of all, though the success was only known to the few who stole from Pomona the mural space which is usually regarded as her right were certain varieties of the Hybrid Bourbon and Hybrid China section. They are summer Roses, and make no claim, like the Roses of Pæstum, to an autumnal bloom (there are many Hybrid Perpetuals who promise but do not produce it, as the cricketer who makes a century in his first innings and a duck's egg in his second), but that bloom is of long duration and of transcendent beauty. What can be more lovely than a tree of Blairii 2, 10 feet in height and 20 feet in breadth, with its infinite abundance of blush Roses, so full and yet so perfect in form. Charles Lawson and Paul Ricaut of the same family are also magnificent on a wall, and I shall never forget a grand specimen of Paul Perras which I saw many years ago on the rectory at Drayton, near Norwich, the home of a beloved friend.

Here and there upon ancient mansions, where they were screened from the violence of the storm but enjoyed the warmth of the morning and midday sun, Tea Roses were to be found with their shining foliage, pretty

white buds, and faint odour, having no special designation, but commonly known as Odoratas, and generally supposed to have been brought home from India or China by nautical ancestors who had been famous travellers, or who had fought for their country on the high seas.

Then came in 1853, *annus mirabilis*, a jubilee year in the reign of the queen of flowers, ever to be remembered for the arrival at her court of a new lady-in-waiting, who was to win all hearts, wherever she went, by her beauty and gracious demeanour. She bore an illustrious title as Gloire de Dijon, and was preceded by grandiloquent descriptions of her charms; but we had become suspicious and sceptical from disappointments previously inflicted upon us by "our lively neighbour the Gaul," by our inability to verify his effusive epithets of *magnifique, seduisante, parfaite, superbe*, and we read with incredulous derision that this new *débutante* combined every excellence of flower, foliage, colour, form, and fragrance, with the most vigorous growth and the most abundant bloom. We were speedily convinced that the portrait of gaudy colours did no justice to the reality. It was, and it is, the first and the last of our outdoor Roses to gladden our eyes in May and in December. It has a variety of tints which we find in no other Rose, white and red, orange, lemon, and buff. It flourishes anywhere, everywhere, where there is purity of air and depth of soil. It beautifies castle and cottage, through the length and breadth of the land. Gloire de Dijon is a Gloire d'Angleterre.

It adapts itself to a large or to a limited space. It has prospered for forty-four years upon the chancel of Caunton Church, and I have counted more than 300 Roses in simultaneous bloom; and I shall never forget a pathetic incident when, returning from a vain search in Brighton Cemetery for the resting-place of one very dear to me, I saw a Rose in the middle of the ground, the only one visible, for it was in the beginning of winter, and I drew near it to find Gloire de Dijon planted by the grave of my friend!

The distinguished foreigner was followed, like other successful immigrants, by her relations, notably by her beautiful sisters Mme. Bérard and Reine Marie Henriette, with others bearing a strong family likeness; but they paled their ineffectual fire in her presence like glow-worms at break of day.

A decade passed before another record Rose appeared among the climbing varieties, and brought to us rosarians the most joyful surprise and excitement within the range of my experience. Long time we had sighed and hoped for a grand yellow Rose; we had abandoned Cloth of Gold in despair; the Banksian flowers were too sparse, too small, and too pale; we were thankful admirers of the Austrian Briars Harrisonii and Persian Yellow, but they did not satisfy; we envied Mr. Gilbert, at Burghley, his splendid double yellow Provence, which we failed to grow, as our ancestors, who were ever enquiring "how to blow the yellow Provence Rose?" had failed. We put the hard, constipated buds of Smith's Yellow into warm water, and tried with all the breath at our disposal to bid them come forth and suffer themselves to be admired; but all our efforts, all our aspirations, were in vain. Suddenly, as to one who dreams that he is imprisoned in a dark dungeon for life, and wakes in sunshine, we had before us our heart's desire, Maréchal Niel, in all his golden glory! It could not achieve the popularity, because it had not the hardihood, of Gloire de Dijon; but it is a priceless jewel in Queen Rosa's

crown, and it is much hardier than many suppose. By far the best specimens I have grown were upon a wall here (Caunton) with an east aspect, and I have two trees now bearing beautiful blooms which have been for more than twenty years in the same position. They are sometimes severely punished in the winter, but they revive in spring and flower in the summer. Sometimes they perish, but

"Tis better to have loved and lost
Than never to have loved at all."

(To be continued.)

GARDENING OF THE WEEK.

FLOWER GARDEN.

THE ROCK GARDEN.

AFTER heavy rains it is advisable to go over the rock garden and replace with fresh soil any that may have been washed away. In such places a few pieces of slats or flat stones placed edgways at fairly close intervals will prevent much of the washing, and not be at all conspicuous. Any plants which are battered by rain and winds must receive attention in the shape of removing the worst leaves, cleaning the remainder, and carefully tying the growths into shape.

It is wise to be on the safe side and insert a few cuttings of any tender Saxifrage, Sempervivum, and other plants of doubtful hardiness. These placed in a cool frame will soon root in sandy soil. Small pieces with a few roots attached may be easily removed from many plants. These potted into small, well drained pots will quickly become established and be fit for planting out next spring. In the case of single specimens of valuable alpine it is, perhaps, as well to pot them up, and also winter them in cold frames, and next year with increased strength they may be left out. On the first dry, sunny day, all the remaining ripe seed should be gathered. The cleaning and packeting of these will furnish employment for a wet day.

HARDY CACTI.

This interesting class should receive especial attention just now, so that they may be in the best of condition to withstand the autumn rains and damp, muggy days. The portable lights should be thoroughly overhauled to see that the glazing is water-tight, and, of course, any broken or cracked squares of glass should be repaired. A coat of paint will improve their appearance and preserve the woodwork. If at all close or mossy, the surface soil should be removed, replacing it with fresh, in which broken sandstone and grit largely predominate. All decaying portions should be removed with a clean cut of a sharp knife. Pieces of charcoal and freshly-broken sandstone placed around the stems will absorb a deal of moisture, and help to keep the roots in that state of comparative dryness which is so essential to their well-being for some months onwards. Here, again, it is advisable to insert a few cuttings, and winter them under warmer conditions. When the weather requires the plants to be protected by the lights, care must be taken to ventilate freely whenever possible.

LATE-FLOWERING TULIPS.

As most of the species, Darwin, Parrot, Cottage, and other late-flowering sorts, require a longer period of growth than the more common Dutch breeders, they should now be planted. The home-grown bulbs require cleaning and sorting; any outer scales which are not perfectly healthy must be rubbed off. The smaller bulbs should be kept for the reserve garden and out of the way corners. Plant rather more closely than with the Dutch bulbs; the depth will vary with the texture of the soil. Where it is heavy 4 inches will suffice, and in a light soil a couple of inches should be added. Many of these late Tulips flower well in partial shade, in such a place as is suitable for the smaller Fritillarias, which are also among subjects for present planting.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

TREE CARNATIONS.

THOSE that have formed their flower-buds early should now be taken under shelter; indeed, they should be placed where they are to flower during the autumn. The plants as they are being taken inside should have a good stake placed to each, and the shoots, as well as the flower-stems, be made secure. Remove from the surface soil in the pots any weeds or moss that may have accumulated. Although the plants appear to have made good roots, stimulants are not at present necessary, except that a dose or two of weak soot water may be given with a view to sustaining them in a healthy condition. A great enemy is greenfly, from the ravages of which the plants may be easily freed by syringing with well diluted nicotine, as well as fumigating occasionally with XL All Vapouriser.

INDIAN AZALEAS.

Most of these by this time have set their flower-buds, and have ripened well their growth. They will be quite ready for being taken inside, and they will be safe against heavy rains, as well as from injury by early frost. There is no better season for overhauling the collection and for repotting those that require more space for their roots than the present, and the compost for the latter purpose should consist of two-thirds good fibry peat to one of good loam, grit, and sand. Syringe the plants well with insecticide before they are housed, and afterwards fumigate well with XL All to entirely eradicate any thrips with which they may be infested. For some time yet the ventilators may be kept open night and day, and keep the surroundings of the plants healthy by syringing the stages and paths two or three times a day. Although the supply of water to the roots of these plants should gradually diminish, they must never be allowed to suffer from lack of moisture.

COLEUSES.

The simplest way of maintaining a stock of these through the winter is to put from three to five cuttings in a 4-inch pot and root them in bottom-heat at once. Directly they have rooted nip out the lead, encourage them to break, and then place them near the glass in any house where the temperature ranges from 55° to 60°, and where on all favourable occasions a little fresh air can be admitted. Immediately a sufficient stock of cuttings is obtained use the old plants for any decorative purpose, as afterwards they can be thrown away to economise space.

MARGUERITES.

The young plants which are expected to flower early next season should be propagated from cuttings to be inserted at once. For the purpose select good strong half-ripened shoots, and insert these in sandy soil about three to five around the sides of 4-inch pots, and place in any close position with shade from strong sunshine and they will soon emit roots. They will not require separating until the spring of next year, but should be given abundance of air and light during the winter months.

RICHARDIA ELLIOTTIANA, unlike aethiopia, requires to be dried off during the winter. For the purpose remove the plants to where they will be quite dry and free from injury by frost. They must not be put under the drip from other plants, and a temperature of 50° will suit them admirably.

Tranby Croft, Hull.

J. P. LEADBETTER.

FRUIT GARDEN.

PINES.

LATE QUEENS which are now swelling their fruit will require more careful treatment as the fruits approach ripeness. They must not be allowed to become too dry or they shrivel. On the other hand, if they get too wet they will turn black in the centre. Clear water only should be given at this stage, and less syringing will be necessary as the days shorten and the sun loses its power.

Keep a night temperature of 80°, falling to 75° in the morning, and a moderately moist atmosphere by sprinkling the beds and damping the paths. During the time the winter fruifers of Smooth Cayennes are in flower the atmosphere should be kept slightly drier, but when they have passed this stage the moisture should be increased, the beds and house generally damped down and closed early on bright afternoons. Weak applications of guano water should be given at alternate waterings. Keep the bottom-heat steady at about 85°, with a night temperature of 68° to 70°, with the usual rise with sun-heat during the day, and admit a little air early in the day before the temperature rises too much.

The earliest successions which are intended for starting early will soon have finished their growth; gradually withhold water from them to induce them to rest. Gradually lower the temperature and give a freer circulation of air on all favourable occasions. Care must, however, be taken that the plants do not become too dry or they will be permanently injured. Overhead syringing should be discontinued, damping of the beds and paths being sufficient at this season, with a night temperature of 65°. Late Queens should be encouraged to make growth some time longer, until the pots are

and burnt ash, with a sprinkling of bone-meal, when the plants are finally potted. Stake the plants and pinch out all side laterals as they appear.

POT VINES.

Pot Vines intended for starting early in November will now have matured their growth and be resting. Very little water will be required when the flowers are ripe. They must not, however, be allowed to become too dry. If the roof lights cannot be removed now is a good time to put the Vines outside. A wall facing south is a good position for them. Make the canes secure to prevent damage from strong winds. Pack up the pots with some material to keep off the sun, and remove all the laterals, as soon as the leaves have fallen. Remove young planting canes as soon as ready to a similar position to become hardened and well ripened.

Impney Gardens, Droitwich.

F. JORDAN.

KITCHEN GARDEN.

CLEANING, &c.

In the north we are at this date (August 30) enjoying a spell of splendid weather with very strong sunshine. Every effort should be made to give the kitchen



THE ARUM LILY BY A DEVONSHIRE POND EDGE. (See page 174.)

well filled with roots and the growths finished for the season. Give weak guano water and soot water at alternate waterings, closing early with sun-heat, until the plants require to be rested as for the earliest Queens. Look carefully after the younger stock, and give them similar treatment as for successions, slightly dewing the plants overhead on bright days only, and gradually reducing the shading as much as possible. Put in any suckers still required at once, to give them time to become rooted before winter. Strong suckers require a 7-inch pot, and smaller ones a 6-inch pot. Pot firmly and plunge in a bottom-heat of 85° to 90°, keeping them as close to the glass as possible. No water will be necessary until rooted through, and watered afterwards only when they require it. Keep the house close, and dew the plants lightly overhead on bright days only, gradually increasing the air as the plants get established.

TOMATOES.

Plants which are required for winter fruiting should be potted on as they require it, and encouraged to make sturdy growth by having plenty of ventilation. The plants do best in a cool pit, and stand them on a firm ash bottom, giving them plenty of room. Use good fibrous loam, lime rubble,

garden a thorough cleaning, and if well done on this occasion it should be the last required for the season. All plots should be gone over and the largest of the weeds pulled out by hand, and afterwards the ground should be given a deep hoeing. Weeds will not make so much progress after this date. Remove all loose and yellow leaves from Cabbages, Cauliflowers, &c., and wheel from the garden. The walks should also be carefully hoed, and, what is more important, carefully raked, as weeds are liable to take root again at this season. Remove Pea haulms that are exhausted. The kitchen garden ought to look well at this date, and cleanliness is the chief factor in bringing about this desirable result.

This is a most suitable time for a consideration of what is to be done by way of improvement in the kitchen garden next year. Crops that have failed will, perhaps, require different treatment or change of ground. Varieties of Peas, &c., that may not have been a success should be noted for discarding. If there has been a gap in the supply a change of varieties will have to be made. Notes should be taken of all vegetables that have not been satisfactory, and plans made to secure success next year. Attention must be given to setting the forcing conveniences into order for the winter's work. The



LOWER SLOPES OF LEBANON COVERED WITH
"SNOBA" PINES.

lifting of Sea Kale, Rbubarb, Mint, &c., will soon have to be done. Manure should be prepared for all plots as soon as possible. Winter Onions, Spinach, and Lettuce should be sown at once to ensure a good growth before frost comes.

TOMATOES.

During this fine weather every effort should be made to get the entire crop ripened, as the hours of sunlight are becoming shorter. All new growth should be kept off the plants, and the fruit turned if possible to the sun. If no leaves have till now been cut from the plants, they may be considerably shortened near the fruit clusters. Plants out of doors should receive similar treatment. If glass lights can be placed in front of the plants it will hasten ripening considerably. After this date frost may occur at night, and a few mats may be held in readiness for covering. Fruits showing signs of ripening should be removed and placed in a warm house to ripen. The flavour may not be of the best, but they will be useful for many purposes in the kitchen. Plants for early winter-fruiting should now have fruit set, or at least be showing flower. Slight stimulants may be given at this stage, and the plants taken indoors to a cool airy house.

Hopetown House Gardens, THOMAS HAY.
South Queensferry, N.B.

CORRESPONDENCE.

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

THE LEBANON CEDARS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have been greatly interested in reading the article in THE GARDEN (August 20, page 125) on the Cedars of Lebanon. I have recently visited the Lebanon, and had an opportunity of seeing some of these noble trees in their native habitat. The trees mentioned in your article and described by other travellers are evidently those on the Tripoli range, which is about three days' journey from the Baruk range, which I visited. There appear to be only a few survivors in the former, whereas on the Baruk they number thousands, scattered in various groups, and ranging from a few veterans to many trees in their prime, and quantities of comparatively young ones. Besides these, there are many low stunted bushes only a few feet high, yet evidently many years old, but kept in their dwarf condition by the browsing of goats. If it were not for the depredations of these animals there would soon be hundreds of acres of Cedar forests, as the trees cone freely and shed widely fully-developed seed, and thousands of seedlings can be seen springing up in all directions, but only to be devoured by the herds of goats. An enterprising government would preserve such a fine natural product, and thereby not only

restore a most valuable commodity, but also greatly help to bring a rainfall that would mean fertility to thousands of acres of barren land. I enclose some photographs that I took showing some of the groups with trees of various ages, one of them a stunted tree eaten by goats. The view of the summit shows the snow still lying thickly in patches, and a considerable quantity still remained amongst the Cedars at the time of my visit, so that they literally drank up the snow-water with their roots. But the hot wind and the brilliant sunshine that we experienced would in the course of a few weeks melt the snow.

Lowfield Nurseries, Crawley. JOSEPH CHEAL.

PHLOXES ON NORTH BORDERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In my remembrance Phloxes have never before suffered so intensely from the heat and drought. With me the trusses did not nearly reach their full size, quite half of the blooms failing to expand. Instead of being in full bloom in the middle of August, by that time the plants had a most wretched appearance, many of the blooms being shrivelled. To such an extent did heat and drought affect the plants that they could not preserve sufficient energy to expand their blooms, a large quantity of the buds withering up. Naturally, when watering with the hose was practicable, Phloxes have been satisfactory, but in the generality of gardens press of work or shortage of



YOUNG CEDARS ON THE SLOPES OF LEBANON.

water rendered such attention impossible. In striking contrast are some plants that are sheltered from the great heat of the sun by evergreens. Although the trusses are not so large as they would have been in a moister season, they are perfect, and look fresh and bright when those in the open are over. By planting a portion of the stock in a north aspect the flowering season is prolonged quite three weeks.

Byfleet.

J. CORNHILL.

TEA ROSE MARIE VAN HOUTTE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Can you tell me when this beautiful Rose was introduced? It has been very beautiful in my garden this year, and is even now full of buds and open flowers.

Taplow.

R.

[This Rose was sent out by the late M. Ducher of Lyons, having been first distributed in 1871.—Ed.]

LILIES ALL THE YEAR ROUND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A decade since it would have been considered impossible even in such an extensive genus as that of Liliium to keep up a succession of flowers (of some species or other) throughout the year, the most critical time being after the late summer and

early autumn flowering L. speciosum had passed away till the Bermuda-grown L. Harrisii unfolded its blossoms. True, one species, L. neilgherrense, was at its best anywhere from Michaelmas to Christmas, but then it was always, and still is, a comparatively rare Lily, and invariably realised high prices.

Prior to the early eighties the only attempt at lengthening the Lily season was to grow L. longiflorum (usually obtained from Holland) in the greenhouse in order to get the flowers early, and to keep L. speciosum out of the ground longer than usual before potting, and then grow them under a north wall, or in some similar position, in order to induce them to bloom late. A little over twenty years ago attention was first directed to the Liliium sent here from Bermuda under the name of L. Harrisii, which had already made a reputation in America. Among other points claimed for it at first were, that as a species it was perfectly distinct from L. longiflorum, that it produced quite a secondary crop of blossoms, and it could be had in flower at a season when we had never before seen L. longiflorum in bloom. Time has, however, considerably modified these assertions, for it is now conclusively proved that this Lily is nothing but the variety eximeum or Wilsoni that we get in such numbers from Japan, the difference in the seasons being caused by the climatic conditions of Bermuda, which enable the cultivators to send dormant, well-ripened bulbs that reach here about the end of July or in early August, some two or three months before the Japanese ones arrive. The assertion concerning the secondary display of blossoms is proved to be perfectly correct; but as a set-off to this is the fact that the flowers are so few in number as to be scarcely worth considering. One thing still remains unquestioned, and that is the great value of L. Harrisii for flowering quite early in the year, as the bulbs are on receipt quite ready to start, and if potted and placed in a greenhouse or cold frame they quickly root and soon commence to grow. A good light position with a free circulation of air is very necessary, otherwise the stems grow up weak, and a sharp look-out must be kept in all stages for aphides. Beside the name of L. Harrisii this Lily in the height of its popularity was sometimes known as L. longiflorum floribundum.

After standing out by themselves for some years, these Bermuda-grown bulbs met with a decided set-back, for the experiment was tried of retarding bulbs of various Lilies by keeping them in refrigerators till long past their normal season for starting into growth, and the results proved so satisfactory that large structures have been built for the sole purpose of retarding plants of different kinds for not only Lilies, but Spiræas, Azalea mollis, Lilacs, Lily of the Valley, and other subjects have been so treated in a perfectly satisfactory manner. These retarded Lilies consist for



CEDARS ON LEBANON, SHOWING A STUNTED BUSH
IN FOREGROUND EATEN DOWN BY GOATS.

the most part of *L. longiflorum* and *L. speciosum* in variety, but the same principle has been brought to bear on others, particularly *L. auratum* and *L. tigrinum*. The principal consideration in their culture is to allow them to start naturally into growth, for if potted, say, at midsummer, or even two months later, the outside air will, of course, be quite warm enough for them, especially after their icy period, and any attempt to rush matters by forcing will only end in failure.

The best treatment for them is on receipt to place them in a cool shed or similar position for two or three days to make sure that they are thoroughly thawed. Then pot and place in a frame or cool greenhouse, keeping them shaded from the direct action of the sun's rays till the stems appear above ground. When the autumn nights get cool and damp a little fire-heat will of course be needed. An autumn and winter temperature of 50° to 60° is necessary. Generally speaking, *L. auratum* and *L. longiflorum* flower in fourteen or fifteen weeks after potting, and *L. speciosum* and *L. tigrinum* in eighteen to twenty weeks if potted in May, June, or July, and after that a little longer. Nearly all Lily bulbs subjected to the retarding process are imported from Japan, and it yet remains to be seen what effect the regrettable war, now in full blast, will have on the large importations that we annually receive from that country. Grown naturally in the open air the Lily season extends over a lengthened period, though the exact time depends upon the season and locality. Thus, before May has left us we may reasonably hope for the earliest blossoms of *L. bulbiferum*, *L. dahuricum*, *L. elegans*, *L. pomponium*, *L. pyrenaicum*, and *L. rubellum*, followed in June and in July by a much larger number, while August sees *L. auratum*, *L. chalcedonicum*, *L. elegans venustum*, *L. Henryi*, *L. superbum*, and *L. tigrinum*. As a rule the outdoor Lily season ends with *L. speciosum*, represented by numerous forms, and Japanese grown bulbs of *L. tigrinum Fortunei*. T.

INSECT FRIENDS.

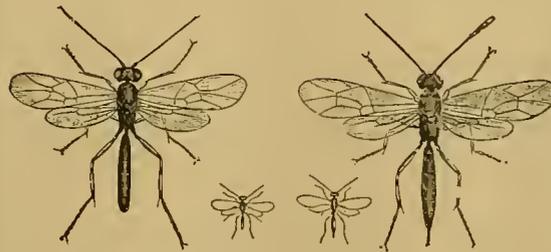
ICHNEUMON FLIES.

ICHNEUMON FLIES and their near relatives usually lay their eggs in the bodies of caterpillars, grubs, and aphides, but some species deposit their eggs in chrysalides and in the eggs. These insects, though called ichneumon flies, do not in any way belong to the order of flies proper, which are two-winged insects, but they are classed in the same order as the saw flies, ants, bees, and wasps, and, like them, have four wings. They are nearly all slender in form, and have long legs—the upper pair of wings being considerably larger than the lower pair—whilst the end of the body in the females is furnished with a long pointed organ, known as an ovipositor. In some species this organ is of great length, being longer than the rest of the insect, and enables the possessor to reach its victim, which may be a wood-boring grub, or so placed that it would be inaccessible to the insect otherwise. In other species it is quite short, and may be entirely hidden in the body of the insect when not in use. The ichneumon flies do not try to kill their victims by piercing them with their ovipositors; their only desire is to lay their eggs within them. As soon as the grubs are hatched they begin to feed on the juices of their host. Caterpillars attacked by these parasites live and feed for some time, and have been known to become chrysalides, but this effort on their part is generally more than they can manage. Several of the smaller species attack various kinds of aphides. One may often see on plants a large brown aphid with a swollen rounded body—the result of infestation by one of these parasitic insects; the latter vary much in size, from insects somewhat larger than those shown in the figure to others about the size of a midge. They are generally black-brown or some dull colour, though some have a bright band across the body.

THE FRUIT GARDEN.

VALUABLE LATE CHERRIES.

THIS has been an unfavourable season for Cherries on open walls, and the crops on standard trees in the open in most parts of the country have been very poor. In private gardens few fruits are more valuable, as they come in early, and where there is space to grow a goodly number of trees the supply may be maintained for quite three months. I do not think we pay sufficient attention to the Cherry as regards its culture under glass either as an orchard tree in pots or planted out; the latter is well worth a trial when a house or a portion of the back wall can be utilised. The fruits are large and the flavour better than those grown in the open, and what makes Cherry culture so interesting is that little forcing is required. The culture is simple providing there are ample supplies of moisture and efficient ventilation. Pot trees have found more favour of late years; Messrs. Rivers' exhibits of these trees have proved what good results may be secured with quite small pots.



ICHNEUMON FLIES.

More interest should be taken in this branch of horticulture, as I fail to see when glass is provided so largely for other fruits why the Cherry should be neglected. Two sets of trees may be grown, some being forced, whilst others are plunged outside waiting, and after the fruits have been picked the house may be used for a time for other purposes. By growing Cherries under glass there is greater certainty of a crop, and the trees can be kept cleaner. One of the greatest difficulties of the fruit grower in light gravelly soil is that the new wood of the Cherry is so subject to aphid, and the attacks are persistent.

For late supplies we have trees on east, west, and north walls. Those on a west are quite late. Late Duke is grown, but this variety, though valuable in this respect, lacks the rich flavour of the Emperor Francis, which is a valuable Cherry, and as it does well on a north wall I place it in the front rank for late supplies. In addition to its lateness it is a splendid fruit, a dark red of the Bigarreau section, and a better grower than some of the Duke section. On a north wall it sets later and escapes spring frosts. This variety is not so well known as it should be, and every season we find it more useful. It lasts well into August when grown as described. I have referred to Late Duke, also known under the name of Ronald's Duke. The value of this Cherry is that it hangs so well even when quite ripe, and will give a supply in the northern part of the kingdom well into September; the fruits are large, bright red in colour, and the tree grows freely in soils not of the best kind, so that it is worth room in all gardens where a long supply is required. Our next best late Cherry on east and west walls is the St. Margaret's, or, as it is often called, Tradescoat's Heart and Large Black Bigarreau. It is one of the finest Cherries grown, and the fruits when fully ripe are a blackish purple with a long stalk, and the flesh is dark purple. The fruits of this variety are not so sweet as some, but the slight acid flavour is not objectionable; indeed, when the fruits are quite ripe it is scarcely noticed. The tree with us is not quite so free as those named above, but it is a reliable cropper, and having a firm flesh it keeps well. Guigne de Winkler is our next latest dessert

Cherry, and it hangs well into October on a north wall. As regards quality, it does not compare with the earlier varieties, though the fruits are large and sweet and the flesh is red. It is well worth room for its keeping qualities; this belongs to the Duke section, and is best when the growths are not crowded in any way. The Black Tartarian, an earlier fruit than the last-named, and also known as the Black Circassian, is a splendid July sort, but grown on a cooler aspect may be had later. This is a delicious Cherry, a free grower and bearer, and one of the best. It does well in our light soil, and belongs to the Bigarreau section; but it did not do so well in the north in a heavy soil. Recently Messrs. Rivers staged a very fine late sort called Black Bohemian, and the new Noble is a very late fruit. These may become valuable, and with the list given above a long succession may be maintained.

Syon.

G. WYTHES.

THE CAUSE OF GRAPES CRACKING.

It is a well-known fact that only certain varieties of Grapes are subject to this evil, the worst, perhaps, being Madresfield Court, and many cultivators have felt compelled to abandon growing this fine Muscat Grape owing to this particular fault. The Frontignans, too, often crack badly, and Duke of Buccleuch is a kind requiring great care to prevent many of the finest berries becoming spoilt in this manner. Muscat of Alexandria sometimes shows a tendency to crack at a certain period of its growth. This variety usually cracks close round the stalk of the berry, which is more annoying than splitting at the apex, as the mischief is not so easily detected before decay sets in and spreads to the neighbouring berries. Several methods of prevention are resorted to by gardeners, such as cutting a notch in the wood just below the bunch, or boring a hole through the shoot, the object being to check the flow of the sap, a superabundance of which causes the berries to extend suddenly beyond the power of the skin to resist, thereby causing them to burst. Others allow a free lateral growth, with the object of carrying off any over-abundant supplies of food.

I do not dispute that these means are not sometimes effective, and have no doubt often served the purpose to which they were intended, but I think such methods must be considered unsatisfactory because they do not strike at the root of the evil. The two former modes savour somewhat of fifty years ago, or further back still. A free extension of lateral growth at a time when cracking is likely to take place is no doubt beneficial, but if too much is permitted to grow there is a danger of aggravating the evil instead of averting it by preventing a free circulation of air amongst the Vines. Moreover, if the shoots have been properly trained and not stopped back too hard from the commencement, there ought not to be any great necessity for leaf growth.

The cause of cracking, I am of opinion, frequently dates back to an earlier stage in the growth of the berries than the ripening period, at which time it always occurs, and is produced by a check, either from an insufficient supply of water, or too low a temperature and cold draughts. These conditions all contribute to hinder the free and uninterrupted growth of the berries, at the same time reducing the elasticity of the skin, which when the critical time arrives cannot expand sufficiently; consequently it bursts. I am convinced that cracking is more often caused through fear of giving water, with the idea of averting the malady, than by keeping the roots constantly moist. If ventilation is performed in a right manner there is no period at which Vines cannot be well watered; in fact, their roots should never approach dryness. I never hesitate to water our Vine borders, most of which are inside, at whatever stage the Grapes may be in, feeling confident that by ventilation I can prevent any ill effects, and I seldom have cracked berries, Madresfield Court and Duke of Buccleuch being treated in every respect like the other kinds. I should, however, be afraid to supply a soaking of

water when the Grapes were approaching ripening if they had not been previously well attended to in this respect; also I should fear the consequences of allowing a heavy fall of rain upon an outside border which had not been watered during a dry time. Roots in a thirsty state will pump up more food than the Vines can utilise, and this is one potent cause of cracking.

Although it is often produced by a check in the growth of the berries, it is more often caused by a too humid state of the atmosphere of the house and insufficient ventilation. Vineries containing varieties which are known to have a disposition to crack should on no account be forced after the berries have commenced colouring. The texture of both foliage and fruit at this stage will admit of a free circulation of air at all times, and the ventilators should be left open a little at night, according to the state of the weather, increasing the supply considerably during the day, but if the weather is cold sod damp fire-heat cannot be dispensed with, a gentle heat being required during the absence of bright weather. Damping the borders must be sparingly indulged in during a dull and sunless time. Some assistants will go the daily round of damping and syringing let the state of the weather be what it may, and injury is often done in this way before it is noticed. Damping and syringing are operations requiring observation and thought, so as to adapt the inside to the outside conditions to a certain extent. A glass roof will not shut out the external air, and although we can by artificial means counteract the extremes which unfortunately fall to our lot in this country, it is well not to follow a too hard and fast line in the daily routine of firing, airing, and watering, but if the external conditions are against us, exercise a little patience and make the most of better weather when it comes. A.

APPLE JAMES GRIEVE.

THE raiser of James Grieve has certainly reason to be proud of his good work, for in the worst seasons we have had it has never failed. Though the crop was light it was good, whereas many sorts did not bear at all. It is a good amateur's Apple, as it is reliable. I would class James Grieve as a good companion to Lane's Prince Albert, the one very early, the other late, but both excellent. The variety Prince Albert has been described on so many occasions in these pages that I do not intend to dwell upon its merits, but I would point out the value of the variety James Grieve. It is a Scotch fruit, but it is certainly at home in the southern portion of the kingdom, and it will succeed in soils where Cox's Orange Pippin fails. It is by no means an old introduction, and is well worth a trial, not for its crop only, but for its good quality. It is a dessert fruit above medium size, and in season in September and October. This season, in spite of its heavy crop, the fruits are of good size, and they will at the early season named be a welcome addition to the dessert. It is not a long keeper, and our trees are grown as bushes. G. W. S.

THE INDOOR GARDEN.

IXORAS.

MY early acquaintance with *Ixoras* was with large specimen plants which used at that time to figure in all the horticultural exhibitions of any pretensions whatever; but all is now changed. The decline in popularity of specimen plants need not, however, entail their banishment from so many gardens, for effective little bushes may be grown in pots 6 inches, or in the case of some only 5 inches in diameter, and when in good condition they form a bright feature in the stove during the latter part of the summer and even early autumn. *Ixoras* have the reputation of being difficult to keep clean, but with care they give little trouble. Cuttings root easily if they are formed of the half-ripened shoots, selecting for choice those of

medium vigour rather than the very strong or very weak ones. A mixture of equal parts of silver sand and peat is very suitable for the cuttings, which should be inserted firmly into well-drained pots, putting three or four cuttings around the edge of a pot 4 inches in diameter. A close propagating case in the stove where there is a gentle bottom-heat is the best place for the cuttings, which under such conditions soon root. For established plants good yellow loam one part to two parts of peat and one of silver sand will meet their requirements. Insect pests may give trouble, as if the atmosphere of the structure is too dry thrips soon make headway, while aphides sometimes attack the young shoots. Vaporising will, however, destroy both of these, while if the syringe is freely used thrips are not likely to give any trouble. Scale sometimes makes its appearance, and mealy bug must be at once got rid of. When there is any danger of mealy bug lurking about a sharp look out must of course be kept, and if a bottle of methylated spirit with a small brush is close at hand a drop of the spirit will destroy not only the bug, but the woolly substance, which is so obnoxious, and that, too, without injuring the foliage in any way. To my mind the value of methylated spirit as an insecticide is not half enough recognised. Apart from the true species of *Ixora*, there is also a long list of garden varieties, so that a selection is by no means an easy matter, but the following are all good and distinct:—

Ixora coccinea.—A true species, native of the East Indies, from whence it was introduced many years ago. Botanically, numerous garden forms are but varieties of this, though distinctive names have been conferred upon them. A comparatively new form, *I. coccinea lutea*, has soft yellow flowers, quite distinct from the typical orange-red of the type.

I. Colei.—A garden variety with very deep green leaves and white flowers, which, though less showy than some of the others, attracts by reason of its (in the case of *Ixoras*) uncommon hue.

I. Prince of Orange.—Bright orange.

I. sanguinea.—Bright crimson, shaded with violet, particularly effective.

I. Westi.—A more robust grower than the others, with pretty pink blossoms.

I. Williamsi.—Varieties with reddish salmon-coloured blossoms are very numerous, but this is one of the best of that hue.

I. macrothyrsa or *Duffi*.—No selection of *Ixoras* would be complete without this species, but it is so different in every way from the others that it well merits a special paragraph. It is of strong growth, and forms an upright sparsely branched specimen clothed with long deep green leaves. The flowers, which are of a rich reddish crimson colour, are in terminal heads, which are in good examples considerably over 1 foot in diameter. Any attempt to form this species into a bushy plant will end in failure, as the massive flower clusters are its most imposing feature, and they are only borne on strong, well-developed shoots. This species is probably seen to the best advantage when consisting of three shoots, each about 4 feet high, and terminated by a huge head of flowers. H. P.

CRASSULA FALCATA.

THIS South African succulent, which, by the way, is more generally known in gardens as *Rochea falcata*, gives a bright bit of colouring to the greenhouse at this season. It forms a stout erect stem furnished with very succulent leaves, and flowers well when a foot or a little more in height. The individual blossoms, which are of a brilliant red colour, are small, but arranged in a large, closely-packed flattened head, which, when dotted over with the bright yellow anthers, is extremely telling. Its cultural requirements are simple, for it thrives in a mixture of loam, brick rubble, and sand, and can be readily propagated by taking off the single leaves and inserting them as cuttings. The principal thing in its culture is to give it plenty of light and full exposure to sunshine, for upon this depends the show of flowers. It is a

native of South Africa, from whence it was introduced in 1795, so that the (to many) charm of novelty cannot be claimed for it. It is a first-rate subject for a sunny window, and so situated I have noted many thriving examples of late. During the winter it will, from its succulent nature, need scarcely any water. This plant and its allies have had a great deal of shifting about within the last few years, for formerly a *Rochea* it is now a *Crassula*, whereas the old *Crassula coccinea* became classed under the head of *Kalosantes*, and is now a *Rochea*. H. P.

A GENERAL CALENDAR.

ARREARS OF WORK.

THE long spell of hot, dry weather through which we have just passed has had a tendency to throw much of the work in the garden behindhand. Watering and shading had to be attended to, and in gardens where labour is not too plentiful things are apt to get neglected.

Rose cuttings.—Where *Roses* are largely grown for heds these are best on their own roots, more especially if the soil is light, but on heavy and cold soils it is preferable to plant those budded on the Briar stock. The Hybrid China, the Hybrid Perpetual, and the Hybrid Bourbon *Roses* all lend themselves well to outdoor propagation. From the middle of September to the middle of October is the best time to propagate *Roses* in this way.

The best cuttings.—In taking the cuttings those that have well matured their growth and are strong and straight should be selected, and in detaching these from the parent plant take with them a small portion of the previous year's growth. In doing this do not remove many cuttings from one plant, or the parent will be much mutilated; on the other hand, a judicious thinning out is beneficial. In

Making the cuttings cut their base straight through just where the season's growth has started from, taking rather a thin slice of last year's wood to form a heel to the cutting. They should be shortened to about 10 inches or 12 inches in length, and in this condition they are ready for inserting in the soil.

Position for the cuttings.—A shady border with either a west or east aspect suits them well. I have also grown them successfully on a north border; in fact, anywhere where the soil is light and dry will answer well, and it is best to put them in precisely as is practised in almost every garden with *Gooseberries* and *Currants*, namely, digging the ground as you go on with the putting in of the cuttings. These should be in rows 12 inches apart, from 5 inches to 6 inches between each cutting, and so deep as only to have three to four eyes above ground, fixing each row well in the ground. All the protection that is necessary in winter—should the frost be very severe—is to sprinkle a little dry litter over them, removing it immediately when severe frost is over. These make well-rooted plants by midsummer without any further care than being kept clean and the surface of the soil stirred occasionally.

Sweet Peas.—Most of those that were sown early are now ripening their seeds quickly. This should now be gathered without a moment's delay. For seed gathering, especially of *Sweet Peas*, choose a fine day. Let the pods be perfectly dry. Select all the finest and best filled ones, and, where it is desirable to keep the colours separate, great care must be taken in gathering the seeds. All should be carefully labelled before putting them away.

The Belladonna Lily (*Amaryllis Belladonna*).—This beautiful Lily is very fine this season, the dry, hot weather just suited its requirements. They are now throwing up fine, long spikes of their handsome flowers; these should be seen to without delay. They have no foliage to protect them from wind and rain. Timely staking will, therefore, be beneficial, and a little shelter afforded when they are very much exposed.

Fruit gathering.—The protection of ripening fruit, and the gathering of it when it is fit, will now require the most urgent attention. Early Apples and Pears, if gathered a few days too soon,

will be insipid in flavour if kept in the fruit room. If on the other hand they are allowed to remain a few days longer on the trees than they ought to do, they become mealy; their precise period of maturity must therefore be watched. Careful handling at all times is most necessary, and they are best gathered during the hottest period of the day.

Mushrooms.—Where it is necessary to have a good supply of these from November till spring, this is the best time for making up the beds. In September the spawn naturally vegetates more freely than in any other month. It may be introduced when the heat of the bed is 70°, but when it declines, some time after spawning, cover the beds with a layer of straw. Care must be taken that this does not cause the soil to become too hot. If this is likely the covering must be made lighter. Between 55° and 60° is a good temperature for beds in bearing. T. B. FIELD.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

The meeting in the New Hall on Tuesday last was comparatively small, and there was a poor attendance. The Orchid committee gave an award of merit to a new Cattleya; the floral committee gave a similar award to four Dahlias, a hybrid Campanula, a Pink, and a bedding Begonia. A new Raspberry obtained recognition from the fruit committee. There were several interesting collections of Gourds among the exhibits in the hall, and in the afternoon Mr. Odell gave a lecture, illustrated by limelight, about them, and urged their extended culture for decorative effect in the garden.

ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch (chairman), Baron Sir Henry Schroder, Bart., Messrs. James O'Brien, de B. Crawshaw, H. Ballantine, J. Wilson Potter, W. Boxall, W. H. Young, J. W. Odell, H. A. Tracy, T. W. Bood, G. F. Moore, James Douglas, H. Little, and W. A. Bilney. Messrs. Sander and Sons, St. Albans, exhibited a group of Orchids, in which *Laelio-Cattleya Hemy Greenwood* and *L.-C. blechleyensis* were conspicuously bright. *Phaius ashworthianus*, with yellow sepals and petals and red-brown lip; *Brassia variegata*, with quaint green black-spotted flowers; *Phalaenopsis Esmeralda*, several *Cypripediums*, *Chondrochrysa Chestertonii*, *Zygo-Colax Veitchii*, and *Miltonia Regnelli concolor* were other notable plants. Silver Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, made a pretty display with Orchids in variety. *Cattleya gaskelliana alba*, *C. dowiana*, *C. granulosa*, *C. apicostissimum*, *C. Grossi*, and *Laelio-Cattleya Ingramii* were well represented, and others good were *Odontoglossum crispum*, a beautiful pale variety of *Dendrobium Phalaenopsis*, *Vanda tricolor*, *Brassia lawrenciae longissima*, *Phalaenopsis denticulata*, *P. violacea*, and *Aerides Lobbi*, with rather large rich rose flowers in a drooping raceme. Silver Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, sent a collection of hybrid *Laelias* and *Laelio-Cattleyas* that made a very attractive display. Among them were *L. Pacuvia* (purpurata x tenebrosa), *L. splendens* (crispata x purpurata), *L.-C. blechleyensis*, *L.-C. haroldiana* (tenebrosa x hardyana), *L.-C. Bryan*, *L.-C. callistoclossa*, *L.-C. digbyano-cigas*, and *Zygo-Colax Veitchii* (crinitum x jugosus). Silver Flora medal.

The Hon. Walter Rothschild, Tring (gardener, Mr. A. Dye), sent a collection of Orchids, such as *Masdevallia*, *Nanodes*, *Restrepia*, *Colozyne speciosum*, and *Glanthes zygopetaloides*. A botanical certificate was given to *Masdevallia burhidgeana*. Silver Banksian medal.

Several *Cypripedium* hybrids were shown by J. G. Fowler, Esq., Gleadlands, South Woodford: they were *callo-rothschildianum*, *Penelope* (*Morganiae* x *Veitchii*), and *I Ansoni* (*Morganiae* x *rothschildianum*).

Captain G. L. H. Ford, C.I.E., Westonbirt, Tetbury, showed *Zygo-Colax wicanianus superbus* (*Z. intermedium* x *C. jugosus*), and also *C. Iris Westonbirt variety* (*C. bicolor* x *C. aurea*) that obtained an award of merit.

Cattleya X *Marshal Oyama* (*C. granulosa schofieldiana* X *aurea dowiana*) was shown by C. L. N. Ingram, Esq., Elstead, Godalming.

R. J. Measures, Esq., Cambridge Lodge, Camberwell, showed a *Zygotetrum* hybrid (*maxillare* X *josianum*).

A very finely flowered pseudo-bulb of *Cattleya Harrisoniae*, bearing a raceme of ten flowers, while there were practically no roots at all, was shown by Gurney Wilson, Esq., Glenthorne, Haywards Heath. It is remarkable that a pseudo-bulb with hardly any roots at all should produce such an unusually fine raceme, while well-rooted plants rarely bear more than four flowers per bulb.

NEW ORCHID.

Cattleya Iris Westonbirt variety.—The parents of this striking hybrid are *Cattleya bicolor* and *C. aurea*. The sepals and petals are green with a rosy tinge, with which the bright purple lip contrasts well. From Captain G. L. Ford, C.I.E., Westonbirt, Tetbury (Orchid grower, Mr. Alexander).

FRUIT COMMITTEE.

Mr. A. H. Pearson (chairman), Messrs. F. Q. Lane, J. Jacques, Owen Thomas, E. W. Gilbert, J. Lyne, H. J. Wright, George Kelf, John Basham, William Pope, Alex. Deaa, S. Mortimer, T. W. Bates, J. McIndoe, and J. Cheal.

Messrs. William Paul and Son, Waltham Cross, exhibited a group of fruit trees in pots, including Apples, Pears,

Plums, and Peaches. They were well fruited, the Apples and Pears particularly bearing heavy crops. Very good single dishes of Allington Pippin, Baumann's Reineette, Duchess of Oldenburg, Fearn's Pippin, King of the Pippins, Peasegood's Nonsuch, The Queen, and others were exhibited. Silver-gilt Knightian medal.

Mrs. Brightwen, The Grove, Stanmore (gardener, Mr. J. Odell), exhibited a most interesting collection of ornamental Gourds, in many quaint and curious forms. We noticed White Egg, Large Bell, rotunda alba, Gooseberry Gourd, White Pear, White Turk's Cap, Ostrich Egg, Striped Bell, Yellow Custard, Yellow Spoon, Red Turk's Cap, and Large Green Apple, all more or less resembling the objects after which they are named. Silver Knightian medal.

Captain A. E. Speer, Saodown Lodge, Esher (gardener, Mr. R. Perry), exhibited a collection of ornamental Gourds, among them being Green Turk's Cap, oak-coloured Wart Gourd, White Club Gourd, Small Green Striped Pear Gourd, Orange Gourd, Small Three Coloured Gourd, Red Turk's Cap Gourd, White Onion Gourd, and others, making a very interesting display. Bronze Knightian medal.

Harry J. Veitch, Esq., East Burnham Park, Slough, exhibited a collection of ornamental Gourds in great variety of size, shape, and markings.

An extensive collection of Gourds was shown by G. Ferguson, Esq., The Hollies, Weybridge (gardener, Mr. F. W. Smith). They were represented in great variety, in many quaint and curious forms and rich and sombre colouring. The Orange Gourd was, perhaps, the richest in colour. The Japanese Climbing Cucumber, Luffa Gourd (Vegetable Sponge), the Musk Melon, and others were among those shown. Silver Banksian medal.

Raspberry Peawill's Champion was shown by Mr. G. Penwill, Totnes.

Grape Drachenbergen Seedling, a good deal resembling Foster's Seedling, was shown by Mr. E. W. Gilbert, Drachenbergen, Potsdam, Berlin.

Melon Norbury Hero, a scarlet flesh variety, was sent by Mr. G. Kent, Norbury Park, Dorking.

Grape Edith, a Sweetwater variety, was shown by Mr. W. Aldridge, Clarence Road, Teddington.

Mr. W. Seward, Hanwell, sent Tomato Hanwell Victory.

A cultural commendation was given to Mr. W. Rouppel, Rouppel Park, S.W., for some fine fruits of Apple Bietigheimer.

Messrs. James Veitch and Sons, Limited, Chelsea, showed Tomato Gilbert's Seedling, a fairly large round fruit of rose-red colour.

Mr. Charles Ross, Welford Park, Newbury, showed Apple Ruddy (of deep red colour), Apple Echo, and Plum Trump.

A cultural commendation was given to Mr. R. Lye, The Gardens, Sydmonton Court, Newbury, for Runner Bean Sydmonton Exhibition.

Mr. Arthur Otteaway, Swanley, Kent, showed Apple Otteaway's Pippin, a pale yellow fruit.

Mr. Richard Anker, Napier Road, South Kensington, exhibited a new fruit gatherer that has many advantages. At the end of a rod, some 8 feet or more long, is a cup-shaped receptacle made of tin and lined with felt. One-half of this receptacle is made to open by means of a lever at the base of the rod. When the fruit is inside the cup a trigger is pressed that causes the cup to close round the fruit, which may then be gathered.

Mr. G. Pope, Castle Gardens, Highclere, Newbury, exhibited a collection of Apples, many of the varieties being finely coloured. Peasegood's Nonsuch was an excellent dish, and so were Lady Sudeley and Duchess of Oldenburg.

Ornamental Gourds in variety were shown by the Horticultural College, Swanley.

Lubrose, an imperishable paint for greenhouses, &c., was shown by Mr. Drury, manager of the Lubrose Paint Company, Moorgate Station Chambers.

NEW FRUIT.

Raspberry Colwell's Red Diamond.—This appears to be a valuable late Raspberry. The fruits are above medium size, dark red in colour, of sweet and pleasant flavour, and from the fruiting branches exhibited this variety evidently crops well. From Mr. J. B. Colwill, Sidmouth. Award of merit.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Drury, H. B. May, R. Dean, J. F. McLeod, R. Hooper Pearson, J. Jennings, James Hudson, C. E. Fielder, C. Dixon, W. Bain, Charles E. Shea, Amos Perry, William Cuthbertson, George Nicholson, Charles E. Pearson, J. W. Barr, R. C. Notcutt, H. J. Jones, W. P. Thomson, E. H. Jenkins, William J. James, Edward Mawley, George Paul, and Charles Black.

Messrs. J. Hill and Sons, Lower Edmonton, set up a large table of Ferns in variety. There were *Adiantum* and *Davallias*, *Acrostichum* and *Nephrolepis*, *Branea* and *Polypodium*, with *Gymnogramma*, &c., all representative of their kind. Some distinctive things were *Davallia assamica*, with hoary rhizomes and dark acuminate fronds; *Platycerium Hillii*; *Acrostichum quercifolium*, with fertile and barren fronds; *Lomaria L'Herminieri*, with tree-like aspect and red fronds. Probably *Asplenium marginatum* was the most distinct in the group. The pale green fronds and oppositely placed pinnae are marked features of the plant. Silver Banksian medal.

A magnificent specimen some 8 feet in diameter of *Davallia filifera elegans* came from H. Baxter, Esq., Hutton Park, Brentwood (gardener, Mr. Holloway). A cultural commendation was given and obviously merited.

The Cannas from Messrs. Cannell and Sons, Swanley, were exceptionally good, well grown, and well flowered. Among the many excellent varieties shown Miss B. Dunner, yellow, spotted red; Niagara, scarlet and gold; Duke Ernest, orange-scarlet; C. Molin, salmon-orange; Black Prince, dark crimson; and Riese Von Stuttgart, orange-scarlet, were among the best. *Lilium speciosum* and Maidenhair Ferns made the margin, with large Palms in the background. Silver-gilt Flora medal.

Mr. Amos Perry, Winchmore Hill, again showed a large table of cut hardy flowers. Japanese Anemones, Phloxes,

Tiger Lilies, Montbretias, *Liatris pycnostachya* (very fine), *Cimicifuga cordifolia*, the double *Gypsophila*, *Buddleia variabilis*, *Lilium speciosum* *Kratzeri*, *Lobelia Queen Victoria*, *Echiacea angustifolia* (very fine), *Campanula azurea*, with many sundowers, the bold *Kniphofias*, *Helenium cuprea* (very good in colour), *Aster Elsie Perry* (a nice tone of pink), and *Senecio pulcher* were among the best. Water Lilies were also well shown, with *Aponogeton distachyon*, &c. Silver Banksian medal.

The collection of hardy Heaths and allied plants from Mr. David Russell, Brentwood, was an interesting lot. Large groups of *Erica vulgaris* Allportii and *E. v. alba stricta* were represented by 3 feet patches. *E. v. Hammondii* (white), *E. v. plena*, *E. v. carnea grandiflora*, *E. v. rigidus*, and *E. v. vagans alba minor* were among the more distinct.

Gaillardias, *Lobelias*, and *Pinks* were all grandly shown by Mr. B. Ladham, Shirley, Southampton. The *Gaillardias* were extremely fine and gay. Some very good dark forms were noticeable. The perpetual *Pinks* Marion and Florence were in good form, and the hybrid forms of *Lobelia syphilitica* in much variety. These latter, if not indefinitely increased, will be welcome in the garden by reason of their distinctive shades.

Single *Petunias* from Messrs. James Carter and Co., High Holborn, indicate a strain of the highest excellence, from self and yellow-eyed forms to beautifully veined flowers that defy description. The strain is known as *Empress*, and in the large size of the blossoms and the infinite variety is of much value.

Herbaceous *Phloxes* from Messrs. Gunn and Sons, Oulton, Birmingham, were fine and very well shown, though too densely arranged. Among the more distinct we take *Sylphide* (white), *Coquelicot*, *Mme. Mera* (ilac and white), *Tour Eiffel* (salmon), *Etna* (scarlet), *Eden* (white), *Moliere* (rose), *Iris* (violet-purple), *Tapis Blanc* (late white), and *Esperance* (ilac, white eye). *Aurora Borealis*, crimson-scarlet, was also good. Silver Flora medal.

Single Cactus and Pompon Dahlias were contributed by Messrs. Cheal and Sons, Crawley, making a pretty display. In the latter *Neirissa*, *Queen of Whites*, and *Ernest Harper* were very distinct, the latter bright scarlet, the first a rosy shade and very charming. *Darkness* and *The Bride* are two fine singles, with *Princess of Wales*, rosy iliac, very good.

A small batch of Cactus Dahlias came from Messrs. J. Stredwick and Son, St. Leonards-on-Sea. Two of these will be found under awards, and of the rest *Thos. Parkin*, orange, and *Edith Box*, white, are the best. Bronze Flora medal.

New Pompon Dahlias were also sent by Mr. Charles Truor, Slough. *Mignon*, maroon; *Sylvia*, rose-ilac; and *Queen of Whites* being noteworthy.

Mr. Mortimer, Farnham, in a small set of Cactus Dahlias had *Starlight*, rose and white; *Innocence*, creamy white and yellow centre, a large flower; *Alexandra*, maroon-crimson, very fine, with *Vivid*, a very striking scarlet.

Mr. H. Shoesmith, Woking, also had Cactus Dahlias in variety, an award being given to one named *W. Hopkins*. *Jeanette*, yellow; *T. Stevenson*, maroon; and *Mrs. F. Wellesley*, white, were also from the same exhibitor.

Early *Chrysanthemums* were shown by Messrs. W. Wells and Co., Limited, Redhill, in great variety. Such yellows as *Champion*, *Carrie*, *Maggie*, and *September Gold* being good. It is obvious, however, that the heat has been too much for these flowers, and in all probability the later buds will be more satisfactory.

A very attractive group of *Dendalacanthus parvus* was shown by Messrs. Veitch and Sons, Chelsea.

Ferns and *Bouvardias* in distinctive kinds were a very pleasing feature from Mr. H. B. May, Edmonton. Of *Bouvardias*, *Priory Beauty*, *Jasminoides*, *King of Scarlets*, *Mrs. R. Greco*, *Dazzler*, and *Princess of Wales* were good. Some shrubby *Veronicas* were also staged.

The *Begonias* from Messrs. Blackmore and Laogdon, Bath, were representative of a very fine strain, large flowers, good and decided colours, with many shades in all the kinds, single and double. Indeed, it is scarcely possible to see where further improvement can come in, so good generally is the strain. Baskets of double bedding sorts were also set up, and of these we note *Marquis* of Stafford, crimson; *Hollyhock*, pink; *Argus*, scarlet; and *Calliope*, soft pink. All were good and very dwarf in habit. Silver Flora medal.

Messrs. R. and G. Cuthbert, Southgate, staged an excellent group of *Lilium longiflorum*, the plants, though in quite small pots, carrying in some instances as many as nine flowers.

Hardy cut flowers from Messrs. Wallace and Co., Colchester, were in good variety, including such things as *Helianthus mollis*, many fine *Kniphofias*, *Hemeroallis aurantiaca major*, *Lilies* of the long-flowered, *Tiger*, and *speciosum* sections, with *L. auratum rubro-vittatum* and others. Many good *Gladioli* were also shown, with *Watsonia rosea*, *Colchicum Bormulleri*, *Polygonum amplexicaule*, *Amaryllis Belladonna*, *Sternbergia lutea major* (very showy, many bulbs showing three spikes), &c. Silver Banksian medal.

Messrs. Barr and Sons, Covent Garden, had a large exhibit composed chiefly of *Gladioli*, *China Asters*, *Snagdragons*, *Kniphofias*, *Phloxes*, and the like. The *China Asters* were of a representative character as showing the sections of the flower, and contained some very minute forms. *Valotta purpurea* was exceedingly good and brilliant, and of this a large mass was shown.

Messrs. Sander and Sons, St. Albans, had several of the decorative (Rex) *Begonias*, such as *His Majesty*, *Our Queen*, and *Mrs. H. G. Moon*. All were exceedingly attractive and very beautiful to look upon.

Messrs. J. Peed and Son, West Norwood, S.E., had a miscellaneous group, in which succulents, *Salvias*, alpinas in pots, hardy cut flowers, *Aster Amellus* vars., *A. acris*, *Campanula carpatica* in variety, *Sunflowers*, *Bamboos*, *Lilies*, *Statice*, and other such things played a prominent part.

Prince's Oxford Roses made one of the most enjoyable groups in the exhibition. It was indeed an array of beauty and variety that would be regarded with satisfaction at and season, and not less so at the present time. Some exceptional

things were Frau Karl Druschki, of almost wax texture; Amanan Cochet and its white form; Billiard et Barré, rich yellow; Réve d'Or, Souv. de William Robinson, Mildred Grant, Marie van Houtte, W. A. Richardson, Souv. de C. Guillot, &c., really choice and beautiful kinds; Rosa pomifera was shown in fruit, many fruiting branches of Rosa rugosa were used as a margin. Silver-gilt Banksian medal.

A very fine Nymphaea was N. Marana of rose-carnine shade. Shown by the Hon. Walter Rothschild, M.P., Triag Park, Tring.

Nertera depressa and *Funkia grandiflora* were from Mr. W. Roupell.

Cut branches of *Cassia marylandica* were shown by Messrs. Veitch and Son, Exeter.

Chironia ixifera, with an endless profusion of pink blossoms and buds, came from the gardens of Sir Trevor Lawrence, Bart., Dorking. It is a charming plant suited for a quite cool house.

Sir Trevor Lawrence, Bart., also showed some enormous heads of blossoms of *Ixora Duffi* (syn. *I. macrothyrsa*). They had a diameter at least of 12 inches, the brilliant orange-red flowers making a fine display. The plant is almost as remarkable for its great leaf growth as for its heads of blossoms, the first of these often being 10 inches or 12 inches long. A cultural commendation was awarded.

NEW PLANTS.

Dahlia Edina (Pompon).—A yellow-flowered self-coloured variety, very neat and compact, and of moderate size. From Mr. Charles Turner, Slough. Award of merit.

Dahlia Fairy (Cactus).—A flower of medium size and elegant recurring florets, having a more pointed tendency than usual. It is white, though not absolutely pure. Award of merit.

Dahlia J. B. Riding (Cactus).—A pleasing tone of pale orange with a tinge of salmon. It is a flower of considerable merit. These two were from Messrs. J. Stredwick and Sons, St. Leonards-on-Sea, each receiving an award of merit.

Dahlia W. Hopkins (Cactus).—A handsome variety of a marone shade, the central florets tinted with violet-purple. The flower is of a good type and well formed. From Mr. H. Shoesmith, Woking. Award of merit.

Campanula hybrida Fergusonii.—This is virtually a dwarf and frail growing *C. pyramidalis* in general appearance, yet without the close dense setting of the flowers on the spike as seen in *C. pyramidalis*. It is a hybrid between *C. pyramidalis* alba and *C. carpatica*, with a strong leaning to the former in the leaf growth and rootstock. The pale blue flowers are large and cup-shaped and are freely produced on pedicels 3 inches or more long. The plants shown were about 2 feet high, but they were probably the result of cultivation under glass. From G. Ferguson, Esq., The Hollies, Weybridge (gardener, Mr. F. W. Smith). Award of merit.

Pink Florence was shown by Mr. B. Ladhams, Southampton, and received the award of merit.

Begonia Argus.—A new type of double-bedding *Begonia*, having the flowers on short, erect sturdy stems, just clear of the foliage, the blossoms are situated at the top of the stalk, are flatly exposed, and show well. The plant is very dwarf, not more than 6 inches or so to the top of the expanded flower, which is crimson-scarlet. From Messrs. Blackmore and Langdon, Bath. Award of merit.

THE NATIONAL DAHLIA SOCIETY'S SHOW.

AFTER holding one annual exhibition in the Royal Horticultural Society's Drill Hall, Westminster, the committee, being unable to come to terms with the society with respect to holding the show in the new hall, returned to the Crystal Palace, where the exhibition was held on the 2nd and 3rd inst. That Dahlias suffer as exhibition flowers when staged in the Palace there can be no doubt, and a good deal of tabling was not filled. The attendance of the public was poor. We do hope that an effort will be made to hold the show next year in the Royal Horticultural Society's new hall.

SHOW AND FANCY BLOOMS.

It was very evident that taste for these big rounded flowers is giving place to that for the beautiful Cactus forms, as classes for them have been materially reduced. In the class for forty-eight show flowers only three lots competed, Mr. S. Mortimer, Faraham, Mr. J. Walker, Thame, and Messrs. Keynes, Williams and Co., Salisbury, taking the prizes in this order. A few really good blooms of their kind were Dr. Keynes, Lord Salisbury, Arthur Rawlings, Mrs. G. Noyes, John Hickling, and John Standish. In the class for twenty-four blooms Mr. W. Treseder, Cardiff, was first. Faecies had classes for twenty-four and twelve blooms respectively. These all have distinctive striped, speckled, or tipped markings. Mr. S. Mortimer had the best twenty-four, Mr. Walker coming second. Good blooms in these stands were Peacock, Mrs. Saunders, Watchman, Dandy, H. Clark, Comedian, Emio Pasha, and Lottie Eckford.

POMPONS.

These miniature shows and fancies were also less plentiful than at previous exhibitions. One feature in their favour is their wonderful floriferousness and small blooms. Mr. Turner of Slough was first in the class for twenty-four bunches, Messrs. Cheal and Sons, Crawley, second, and Mr. Seale of Sevenoaks third. A fine selection from these are Elsa, Gammede, Thalia, Nerissa, Adelaide, Edina, Bacchus, Silver, Darkes, of All, Buttercup, and Queen of Whites. In the smaller class these varieties were practically repeated.

CACTUS VARIETIES.

These wonderfully pretty flowers were in dominating force, and constituted the chief attraction. Interest centred in the principal trade classes, as it is to these new varieties are mostly found. In the vase classes flowers presented a remarkably beautiful appearance, and were most artistically arranged. In the class for eighteen bunches of Cactus varieties Mr. Stredwick, St. Leonards, Messrs. J. Cheal and Sons, and Messrs. Keynes, Williams, and Co. took prizes in that order. Very beautiful in Mr. Stredwick's collection

were J. B. Riding, yellow centre, orange-red petals (the silver medal Cactus bloom of the show); Columbine, Ella Kraemar, Pearl, England's Queen, and Antelope. Mr. H. Shoesmith, Woking, had the best twelve bunches, his varieties including Phyllis, H. W. Sillem, W. E. Dickson, and Mrs. Francis Whelley. There were two classes for Cactus flowers shown on flat boxes, but the effect was very poor. When forty-eight blooms constitute a class the labour of judging comparatively even flowers is great. Messrs. Stredwick and Keynes, Williams and Co. took the prizes in the large class, and amongst flowers in commerce, such as can be purchased cheaply, were M. Tulloch, J. W. Wilkinson, Peach Blossom, Mrs. E. Mawley, F. M. Stredwick, and Raymond Parks.

VASE CLASSES.

In these Cactus flowers were seen to great advantage. Mr. Seale came first out of five competitors, who staged in all sixty vases. His collection of twelve were effectively dressed with foliage and sprigs of berried shrubs. The varieties included Florence Stredwick, Mrs. E. Mawley, Mrs. H. Jones, Mrs. Brousson, and others; Messrs. Cheal and Walker were second and third. With six vases Mr. H. A. Needs of Woking was first. With three vases Mr. P. W. Tulloch (the secretary) was a good first; he was also first for a vase of singles. Mr. W. Treseder had the prettiest bouquet. We should like to see drapery addition to these exhibits prohibited.

SINGLE DAHLIAS.

Only two trade classes are reserved for these very beautiful, if somewhat fleeting, flowers. Messrs. J. Cheal and Sons had the best twenty-four bunches, too stiffly arranged, but the flowers most beautiful. Striking amongst these were Snowdrop, Princess of Wales, Miss Roberts, Naomi Tighe, William Parrott, and Robin Adair. In other classes in the show these varieties were largely repeated. Competition in the amateurs' classes was fairly good. The silver medal awarded to the best Cactus in these classes went to Mr. McGrath, Huddersfield, for Rainbow, a beautiful pink variety.

Trade groups were largely shown. Messrs. Cannell and Sons, Swanley, had nearly 200 bunches of Cactus, decorative, and collarette varieties, set up with Palms, Eulalia, Kochias, and Gypsophila, a very beautiful exhibit. Hobbies and Co., East Dereham, had 100 feet run of tabling filled with bunches of Cactus and Pompon varieties, charmingly arranged. Messrs. T. S. Ware and Co., Feltham, and Messrs. Wilham Cutbush and Sons, Highgate, both staged very large and most elegantly grouped collections, very artistically displayed. Mr. J. T. West, Brentwood, had Dahlias in considerable variety, inclusive of several of his own raising. Messrs. J. Peal and Sons, Lower Norwood, showed a large group of Caladiums and one of Gloxinias; and Mr. J. Gwilliam, New Eltham, had several hundreds of double and single Begonia flowers, flatly arranged in groups of colours. Honorary awards were made to all these exhibits.

CERTIFICATED SEEDLINGS.

It was worthy of note that out of nearly sixty seedling Cactus varieties staged for certificate only nine obtained them. A much higher standard is now required than was formerly the case. The following obtained awards:

Miss Dorothy Oliver.—Lemon centre, white petals.

Janette.—Yellow. Both from Mr. H. Shoesmith.

J. B. Riding.—Yellow centre, orange-red petals.

Fairy.—Pure white.

Ella Kraemar.—Rich peach self.

Tricolor.—White, shaded yellow, striped red. These four were from Messrs. J. Stredwick and Son.

Rosy Morn.—White centre, rich pink petals.

Cockatoo.—Yellow centre, white petals. These two were from Messrs. Keynes, Williams, and Co.

Thomas Parkin.—Bright red salmon self. From Mr. J. T. West.

Mrs. Hobbs (Show).—Pure white. From Mr. T. Hobbs, Bristol.

Mr. Needs (Single).—Deep red centre, pale yellow petals. From Mr. F. W. Seale, Sevenoaks.

ELYTH SHOW.

THE eighteenth annual show of Elyth Floral and Horticultural Society was held in Bath Terrace Grounds on the 27th ult. The entries were as numerous as in previous years, and the uniform quality of many of the exhibits gave the judges a deal of trouble. That the show fully maintained the position as being one of the principal fixtures in the North was to be seen in many ways, especially by the attendance of some of our acknowledged floral and vegetable experts. Plants were magnificent in bloom, table decorations made an extensive display, and Roses and Dahlias formed features of the show. The principal prize takers were as follows: Messrs. Harkness, Thomas Battersby, J. Cawthorne, M. Allison, G. Gardner, J. Robson, S. Bewick, T. Coxon, W. Taylor, M. Young, J. Marshall, E. Nicholson, W. Forster, J. Swann, A. Allen, W. Brown, and R. Nelson.

RYE DISTRICT FLOWER SHOW.

THE ancient Cinque Ports town of Rye has a long and honourable reputation for successful gardening, and the history of its flower shows goes back a very long way, the most notable chapter, perhaps, being contributed by Charles Dickens, who, in his journalistic days, came from town to describe, in his inimitable way, "Our Flower Show." Of late years the "annual" had fallen into abeyance, the monthly shows of two thriving societies being considered sufficient. Last year, however, a determined effort resulted in the resuscitation of the Rye District Show. An excellent show was completely spoiled, financially, by a deplorably wet day.

Nothing daunted, however, the hon. secretaries, Councilor F. Herbert Chapman and Mr. J. L. Deacon, backed by energetic and enthusiastic committeemen and guarantors, zealously renewed their exertions, and arranged the second show of the new series for the 30th ult., when their efforts were rewarded with the most complete success, so far as the show itself was concerned, there being nearly 800 entries, double last year's number.

The splendid show made by the entries proper was enhanced and amplified by the grand display of non-competitive exhibits, in which Mr. Mount, Caunterbury, led the way with a magnificent lot of Roses.

Messrs. C. and A. Clarke, Dover, staged cut flowers; E. Wallace and Co., Colchester, made a grand show of Gladioli, Montbretias, Liliums, and other cut flowers; and Mr. E. Potten of Camden Nursery, Cranbrook, had some fine Antirrhinums. Mr. F. Thomas, Hastings, contributed charming decorations. Mr. W. N. Knight, Belle Vue Nursery, Rye, had a good display, effectively staged, of Dahlias. Mr. Secretary Chapman exhibited pot Lilies of the Valley.

In the open division Mr. Puxted, gardener to Sir George Warrener, Leasam, Rye, came first for a group of plants; Mr. J. Austea, gardener to Dr. Skianer, Rye, came second. Mr. Puxted proved himself the champion of the show in the matter of prizes. Mr. Secretary Chapman, a specialist in Sweet Peas, carried off the first in that class, with the aid of his gardener, Mr. Masters. Mr. Henry James, the novelist, through his gardener, Mr. G. Gammon, kept the firsts for Geraniums and Apricots to Rye. Mr. G. Bannister, gardener to Mr. H. C. Burra (president of the show) took the first for collection of vegetables; and the finest Figs came from Mr. C. Lyon Liddell, Peasmarsh. There were twenty-four dishes of Potatoes, almost equal in excellence, and very puzzling to the judges.

The fruit display was not very large, but included some good Grapes and splendid Apples, and the Roses, bouquets, and pot plants set off the other exhibits to advantage. The Fern competition was, perhaps, the weakest.

The subscribers' and amateurs' marquee contained some very good fruit and vegetables, but the cut flowers were not particularly numerous, nor was the competition very close. As a whole, however, the display was praiseworthy. In the cottagers' class, always a very strong feature at Rye, there was a very fine display, including the finest Runner Beans and Beet in the show, capital Marrows and ridge Cucumbers. The cut flowers, too, were very noticeable, and the judges and professional florists agreed that Mr. H. Tanton, a keen allotment gardener, had the finest Cactus Dahlias in the exhibition.

BATH FLORAL FETE.

ANY anticipation of the promoters of this show—which was held on August 31 and September 1—may have had of making it this year a financial success met with a complete damper on the opening day. The rain, which commenced early in the morning, continued with increasing severity until nearly closing time. With regard to the exhibition it was undoubtedly a grand display throughout, and in most sections a very decided advance, both in quality and quantity, as compared with some previous years. If there was any falling off in the number of specimen plants, there certainly was not in the quality, for nothing could be finer than the exhibits of Messrs. James Cypher and Sons of Cheltenham, who secured all the premier prizes in this division, Messrs. J. B. Woods and Son and Mr. G. Tucker of Trowbridge winning second prizes. Fuchsias are remarkably well done at the Bath show; the nine splendid trees, 10 feet to 12 feet high, that secured the first prize for Mr. H. W. Tugwell of Crow Hall (gardener, Mr. W. Parrott) showed skilful culture.

Cut flowers, which were no doubt the feature of the show, were accommodated in a large tent. An item that lent effect and colour was the system of showing Cactus Dahlias on stands, a great improvement on the old flat boxes. Cut Begonias as well as the plants were very fine, the doubles shown by Mr. F. J. Farr (first) being especially so. The collections of Gladioli made a grand display, Mr. J. Mattock of Oxford, Mr. W. T. Mattock of Headington (first and second for thirty-six spikes), Messrs. A. A. Walters and Sons, and the Cedar Hrsdy Pinaat Nursery (first and second for twelve spikes) all showing perfect flowers. Asters and Dahlias occupied much space. The best twenty-four show and fancy Dahlias came from Messrs. J. Cray and Sons, Frome, and the best twelve from Mr. Gilbert Dersley. The Cactus varieties made a wonderful display, Mr. G. Humphries securing the honours for twelve bunches, and Messrs. Cray and Sons for twelve bunches of Pompons. Roses, although in considerable number, were overshadowed by their more gaudy neighbours. Teas, of course, predominated. For twenty-four blooms Messrs. Jefferies and Soas, Cirencester, were first, Messrs. Perkins and Son, Coventry, being second. For twelve blooms Mr. J. Crossing, Penarth Nurseries, N.W., was first with a fine stand. In Teas Messrs. J. Mattock and J. Jefferies and Sons took the leading positions, the vases of Teas shown by the latter being very pretty. The whole of the centre stage was taken up with collections of hardy flowers, both competitive and non-competitive. In the class confined to a space 12 feet by 3 feet Messrs. A. A. Walters were placed first, Mr. Fred Eams second, and Messrs. B. Ladhams, Limited, Southampton, third, the latter sacrificing effect to number of varieties. Hardy annuals, Zinnias, Marigolds, and cut Gloxinias were all shown in large numbers and generally of fine quality.

The decorative classes were arranged in another tent, and very pretty it looked. Sixteen decorated dinner tables filled the centre of the tent. Mrs. T. H. Woodland was the first prize winner; second, Mrs. Colson Hale. We would strongly recommend the committee another year to follow the example of Shrewsbury and exclude Orchids from this class. Bouquets, although numerous, were generally poor. Bowls of flowers were very pretty. Perhaps the most interesting feature in this tent were the wild flowers.

FRUIT.

Bath shows have a reputation for good fruit, and that reputation was in no way diminished by this season's exhibition. Grapes made an imposing array the whole length of the tent. Apples, of which there were some 150 dishes, were grand, especially the dessert varieties, the colouring being remarkable, Beauty of Bath being most prominent, and amongst the kitchen varieties Peasgood Nonsuch was

in all cases very fine. Pears were numerous, but averaged small in size. Mr. J. W. Fleming, J. P., of Chilworth Manor, near Southampton (gardener, Mr. W. Mitchell), was first for eight dishes of fruit, the Right Hon. W. H. Long, M.P. (gardener, Mr. Strungnell) being second.

In the Grape classes Mr. Fleming was again successful, being first for the twelve bunches in four varieties, three bunches of Black Hamburg, and for two bunches any other variety. The Madresfield Court that won this last-named prize were undoubtedly the finest Grapes in the show. For white Grapes Mr. Fleming was second, Mr. W. Marsh of Bath being first with better-coloured Muscats.

Eighteen Melons were staged, the first for green flesh (The Islander) going to Mr. H. Chislett, Trowbridge, and the first for any other variety to Mr. G. P. Fuller (gardener, Mr. H. Cook), with a scarlet flesh not named. Peaches were numerous, but all good, especially the first, from the Hackwood Nurseries, Frome.

For three dishes of Pears Mr. H. C. Holder, Bath, was first, and for three dishes of dessert Pears Mr. F. Wait, who also was placed first for three dishes dessert Apples, Mr. W. A. Hicks being an easy first in twelve of one variety with splendid samples of Beauty of Bath. The first prize for three dishes of culinary Apples was taken by Mr. C. C. Tudway (gardener, Mr. C. F. Fehwhite), Wells, with monster fruits.

Vegetables were staged in the open. In the twelve varieties, open, quantity seemed to rule rather than quality, Mr. H. E. Holder being first and Mr. E. Hall second. The cottagers' vegetables were very fine and well staged, and deserved a fuller notice than our space will permit. Special classes were offered by Messrs. Sutton and Sons, Reading, and Webb and Sons, Worsley.

Trade exhibits, which occupied a large space at this show, were exceptionally good. Messrs. B. Ladhams, Limited, Southampton, had a fine stand of their specialities. Messrs. James Garaway and Co. of Bristol made an imposing array with herbaceous flowers. Messrs. G. Cooling and Sons of Bath showed fruit trees in pots, Apples and Pears, and some very fine zonal Pelargoniums. Messrs. Blackmore and Langdon, Twerton Nurseries, showed beautiful seedling Begonias. Mr. Maurice Prichard, Christchurch, Hants, Messrs. Jarman and Co., Chard, and Messrs. Isaac House and Sons, Westbury-on-Trym, showed hardy flowers. Mr. W. H. Pattison, Shrewsbury, sent Violas and Pansies, and the Oaks Garden Sundries Company had a large exhibit. All the above received certificates of merit. The arrangement of the show, the largest in dimensions for some years, was successfully carried out by the secretary, Mr. E. R. F. Pearson, assisted by his son and a good working committee.

PAISLEY HORTICULTURAL SHOW.

THE busy manufacturing town of Paisley had its annual flower show on the 1st and 2nd inst., the exhibits being considered better, as a rule, than on any previous occasion, while in numbers they were equal to those of former years. The various rooms of the Clark Halls were fully occupied with the exhibits, and the large hall presented a beautiful sight, largely owing to four centre tables of great merit, one coming from Ferguslie, through the kindness of Mr. James Coats, the others being sent by three of the local nurserymen (Mr. D. Airdie, Mr. F. Davidson, and Mr. J. Watson). There were also a number of nurserymen's special exhibits, which added much to the value of the show. Pot plants and cut flowers were excellent, fruit was good, and the vegetables models of their kinds. Messrs. G. Mair and Son, Prestwick, well earned their first prize for Gladioli; and Mr. J. Smellie, Busby, was first with Cactus and Pompon Dahlias. Messrs. Carnegie and Son, Ayr, led in a good competition with vases of Chrysothemsus. Mr. D. Airdie, Paisley, was first in the following classes: Six vases Carnations and Picotees, twelve Pentstemons, collection of cut flowers from the open, and collection of plants on centre table (confined to Paisley nurserymen). In a good competition Mr. Hugh Dickson, Belfast, was first for thirty-six Roses; Messrs. Smith and Son, Stranraer, being second. Mr. W. Farquharson, Perth, was first for herbaceous flowers.

Class II. was open to both amateurs and gardeners, and both showed well against each other, in many cases the amateurs beating their professional brethren. Among the most successful in the pot plant and cut flower classes were Mr. R. Robertson, Priory Park Gardens, Mr. R. McGraw, Mr. C. Pattison, Mr. R. Smith, Mr. J. Meiklen, and Mr. D. Christie. In the fruit classes the leading winners were Mr. James Brown, Houston House Gardens; Mr. C. Jamieson, Castle Temple Gardens; Mr. G. Watson, Walkinshaw Gardens; and Mr. D. Christie. Mr. Brown had the best collection grown in the open air. The most successful competitor with vegetables was Mr. James Brown, Houston House, who won for the best collection of vegetables, and had also other eight first prizes. Mr. D. M'Pherson, Mr. J. Howie, and Mr. A. Turner were also among the successful competitors in this section. The classes confined to amateurs and to amateurs residing in the Burgh of Paisley were highly creditable to the exhibitors.

DUNDEE HORTICULTURAL SHOW.

THE annual three days' show of the Dundee Horticultural Society was held in marquees on Magdalen Green, Dundee, on the 1st, 2nd, and 3rd inst. The entries numbered upwards of 2,000, and in point of numbers and quality constitute a record. As may be expected in a district in which are employed some of the best gardeners in Scotland, the exhibits were, as a whole, of special excellence, and reflected much credit on the competitors. The society was fortunate in securing the Countess of Airlie to open the show, her ladyship doing so in the presence of a large and fashionable assemblage. It is difficult in such an extensive show to give an idea of its main features, but it may be said that all sections showed some remarkably fine produce, gardeners, nurserymen, and amateurs all doing themselves the highest credit.

Much interest was taken in the class for a table arranged for effect, 12 feet by 7 feet. Last year the only competitor was Mr. J. Beats, Binrock, Dundee, but this year Mr. D. K.

Meston, The Lodge, Broughty Ferry, entered the field, and although he failed to wrest the honours from Mr. Beats, made a most creditable effort. All the classes for plants in pots were well filled, and the specimens were excellent as a whole. Among the leading prizewinners were Mr. R. W. Saunders, Lismore, Broughty Ferry; Mr. D. Saunders, Tay Park, Broughty Ferry; Mr. T. C. Brown, Balcarn, Dundee; Mr. G. Nicholson, St. Helen's, Dundee; Mr. G. Scott, Seathwood, Dundee; Mr. J. Bethell, Westwood, Newport; Mr. J. Beats, Mr. R. N. Simpson, The Pines, Broughty Ferry; Mr. T. Barnett, Duncraig, Dundee; and Mr. D. K. Meston. In the open classes for cut flowers the bouquets, baskets, and wreaths were very tastefully arranged, the winners of first prizes being Mr. J. Beats, Mr. A. M'Bray, Cupar-Pife; Mr. J. Bethell (for a nice collection of grasses), and Mr. G. Reid, Downfield.

The gardeners' classes for cut flowers were most attractive, and this was one of the best departments of the show. Mr. J. Fairweather, Airlie Park, had the best twelve varieties of Sweet Peas, Mr. Bethell being a good second. Few classes in this section created so much admiration as that for an artistic display of hardy flowers and foliage from the open shrubs excluded, Mr. J. Bethell winning with a most tasteful arrangement of good flowers. There were no entries for show Dahlias, but Mr. H. Rutherford, Brechin, was first for twelve and also for six Cactus Dahlias. Mr. J. Dick won for Pompons; Mr. D. Halley, Strathmartine Road, was first for twelve Carnations, distinct, and Mr. R. N. Simpson was first for twelve vases of Carnations. Mr. R. N. Simpson had the best hardy herbaceous flowers, Mr. J. Bethell being second. The other classes cannot be detailed.

In the classes for nurserymen and florists, Messrs. D. and W. Croll, Dundee, were first for twenty-four Roses, Hybrid Perpetuals or Hybrid Teas, and for twenty-four Teas or Noisettes; Messrs. J. Simpson and Sons being second in each case. Mr. M'Ar, Criff, and Mr. W. Farquharson had respectively the first prizes for twenty-four Cactus Dahlias and twelve bunches of hardy flowers. Fruit was splendid in almost all the classes, and the competition keen. Mr. J. Beisant, Castle Huntley, had the best dessert-table, decorated with flowers and foliage and sixteen dishes of fruit; Mr. J. Beats making a good second. Mr. W. Bennie, Murie, Errol, had the best collection of Apples; Mr. G. Scott that of eight dishes of fruit; and Mr. J. Farquharson, Kinfauns Castle, the best collection of hardy fruits. The leading exhibitors in the Grape classes were Mr. D. Mackenzie, Mr. G. Scott, Mr. J. Kinnear, Mr. J. Beisant, Mr. W. R. Whitecross, Mr. D. Hendry, and Mr. T. Butchart.

The vegetables were very fine, the Corporation Cup for a collection of twelve kinds being won by Mr. W. Harper, Tulliehelton, with a collection of superb quality. Amateurs showed well, and the Corporation Cup for a display of cut flowers and foliage in vases from open border was well won by Mr. D. Duthie, Lochec. Space will not permit of more than a summary of the nurserymen's exhibits. Noticeable among these were the Apples in pots from Messrs. Storie and Storie, Messrs. W. P. Laird and Sinclair's miscellaneous exhibit, Messrs. Thyne and Paton's floral designs, Messrs. Dobbie and Co.'s Roses, Dahlias, and other flowers, arranged in their usual fine style; Mr. John Forbes' (of Hawick) cut flowers, largely florists' varieties; Messrs. G. Mair and Son's Gladioli, and the exhibits of Messrs. D. and W. Croll and Messrs. J. Simpson and Sons.

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.—Neither of the specimens sent is Dandy. That in flower is Mangle's Variegated, which often blooms, and the small pieces are Mme. Salleron.—Alfred James.—No. 1 is a very deeply coloured form of Salvia Horminum. No. 2 is Phytelidus Duchesii.

Names of fruit.—Bloxham.—1, Dupessis of Oldenburg; 2, Devonshire Quarrenden.—F. T. Medhurst.—The variety is Lord Suffolk, and it is not unusual for this Apple to bear twin fruits.—C. E. F.—3, The Queen; 4, Ecklinville Seedling; 5, Wealthy; 6, Warner's King, unusually well coloured.—P. le C.—1, Plum Denbigh Seedling; 2, Apple Gravenstein; 3, Apple Yorkshire Beauty.

Japanese Maples (H. W. J., Totnes).—You could hardly do better than plant beds of these to give colour in your garden. We question if there are any more useful foliage trees than these, and it is surprising that they are not more generally grown in gardens to give that touch of colour so often wanting in borders and shrubberies. The variety of colouring is great, the leaves beautiful in spring, summer, and autumn, and the trees are quite hardy. The open garden, however, is not the only place suitable for them, for they do well grown in pots, and are then extremely useful for corridor and conservatory decoration. No other plants give the same effect or provide a brighter contrast to the things around them. Plants in pots are useful, for if the latter are sunk in the ground the graceful tops do away with that flatness of surface that too often exists in flower-beds during summer.

Cherries in pots (K. S. W.).—Cherries grown in pots and forced slowly are a great success. There are many varieties suitable, as fortunately most of the good ones succeed when grown under glass. We may mention Early Rivers', Bigarreau de Schreken, Frogmore Early Bigarreau, Bigarreau Jaboulay, Archduke, Royal Duke, May Duke, Nouvelle Royale, Florence, Emperor Francis, and Bigarreau Napoleon. With reference to stopping the shoots of the trees due regard must be had to the variety, some grow much more compactly than others and need less stopping. You must repeat every season if your trees are in small pots, taking away carefully a portion of the outside of the old soil with a pointed stick, cutting away very thick roots and repotting just as the leaves are turning colour. Use a good loam with such stimulants as bone-meal. Pot very firmly. Many growers plunge their trees in the open—in any case the roots need protection. The temperature should be as low as possible at the start, give plenty of air when the trees are in bloom, and when the fruits are set slightly increase the temperature. Give 50° at night, 10° higher by day; as the fruits swell give 55° at night and a corresponding rise by day. Syringe twice daily, morning and afternoon, fumigate freely to keep clean and feed well; also mulch the trees with manure if the pots are small, and as the fruits ripen keep the atmosphere drier.

The Loganberry (W. N. BOLAS).—We recently illustrated this fruiting plant and gave full particulars about it. However, we now repeat them. This plant is a hybrid between a red Raspberry and one of the finer varieties of Blackberry. The fruit is much like an enormous Raspberry in appearance, but with a darker bloom and larger shape, the flavour being very good though somewhat sharp. The fruits are produced on the growths of the previous season in the same way as the Raspberry; it should be cultivated much on the same lines, cutting out the old wood yearly in autumn and training the long shoots, which are thrown up from the base, by tying them to those of the next plant, about 5 feet away. Rich mulching will enable the fruits to swell freely. This mulch should be laid down in March when the fresh growth begins, the fruit being produced in June before Raspberries are ripe. The thorns of the Blackberry are fortunately absent from its stems, which are covered with small, red spines. The foliage is handsome and vigorous and keeps clean. There is no doubt that when better known this plant will become more extensively grown. It is, however, not possible to propagate it by seed, as this has a tendency to revert to the original parent types, so that it cannot be relied upon to produce the true Loganberry, which should be propagated by suckers.

Single Scotch Roses (W. J., Dover).—Yes, you ought to plant these in September, say towards the end of the month. They generally flower at the end of May; they are lovely little Roses, and if suitably placed away from the many flowering shrubs out at that period their beauty is much appreciated. The majority of single Roses are produced on large, straggling bushes, but in this case the neat compact habit lends additional attractiveness to the showy but fleeting blossom. If the persistent nature of the new Rambler Leuchstern could be imparted to the single Scotch Roses, they would gain greatly in value if their dwarf character were not altered. From a number of seedlings it is possible to pick out many decided colours, but the majority will come white, so that it is best to get bushes to colour. They vary from lemon yellow to buff and pink, and from pale rose to rich rosy red, almost crimson. Some have quite a white centre, giving the flower a very pleasing appearance. A single bush will in a short time become 3 feet or 4 feet thick, so that you can easily imagine the beauty of such a bush planted in a conspicuous position. The earliness of the single Scotch Roses makes them invaluable.

Standard semi-double Roses (P. J. WALKER).—At no time is the true decorative value of the standard semi-double Rose seen to better advantage than when grown in a pot in a cool house. A beautiful variety that does well is Mme. Pernet Ducher, one of the best Hybrid Teas. A three year old plant makes a charming display. This Rose is almost equal in growth to its near relative Gostave Régis, which also does well under glass. Every garden would be the better for standards of such glorious semi-double Roses as Grisis an Teplitz, Mme. Laurette Messimy, Killarney, Bardon Job, Queen Mab, Echantress, &c., and then we might hope to see some fine, well-proportioned heads, some drooping, others spreading, but all free from artificiality. Whether in pots or grown outdoors, this type of Rose pays for good culture, and though their blossoms are thin, if given liberal treatment they much improve; in fact, so great is the change that one hardly recognises them when compared with poorly-grown plants. New wood should be encouraged as much as possible, and the knife freely used in thinning the centre of the heads, but the previous year's growths, if hard, may be retained any length, and the longer the better.

Diseased Rose and Peach foliage (K. A. R.). The Rose foliage is attacked by what is known as "black blotch." This fungus is extremely prevalent this year, and we can only conclude it is owing to the excessive wet of last season. We have noticed these diseases of the Rose are far more prevalent upon plants procured from the Continent than upon home-grown ones. It is rather late now to apply a remedy. We should advise you to have the leaves collected as they fall and burn them. Next season, as soon as Roses are pruned, spray the plants well with Bordeaux mixture. Repeat the spraying in May, and again in July and August. If this be done you will considerably check fungoid diseases, if you do not absolutely cure them. The Peach foliage is attacked with Peach leaf rust. It is a very common disease, and we think you need not trouble much about it, as it does not affect the wood. Spraying with Bordeaux mixture would undoubtedly check the rust, only that it should be done much earlier in the season. The spraying of trees can do no harm, and it will certainly accomplish a considerable amount of good. As the fruits upon your Peach trees are not developing well, perhaps the roots are in an uncongenial subsoil. We should advise you to let your gardener just raise the plants in October and then set them



A FRUIT STORE: THE INTERIOR IS FILLED WITH ORR'S TRAYS.

back again in the same positions. This has a tendency to encourage fibrous roots near the surface, and it moreover prevents the trees from making such coarse growth, as they are very liable to do if unchecked.

Sweet Pea Lord Rosebery (J. E. USHERWOOD).—It is not very unusual to find Sweet Pea flowers with double "standards," as appears to be the case with those sent. It is much more unusual to find the "wings" double also. The variety Lord Rosebery is liable to variation in colouring. The doubling of your flowers, and of others we have seen this year, is partly due to the continual watering and perhaps feeding that the hot weather has made necessary.

Winter-flowering Violets (W. SWELLS).—The general method adopted is to select rooted runners of the plants which have done flowering, transplant them to the kitchen garden or some border, where they remain during the summer months, afterwards to be transferred to their flowering quarters. Propagation may be effected by inserting cuttings early in May in boxes, filled with a mixture of loam, leaf-mould, and some sand. Place the boxes in a cold frame, where, if judiciously shaded and syringed, they will root in about three weeks' time. After they have made enough roots to stand exposure the boxes may be put outdoors in a sunny spot, so as to ensure the growth being matured. No transplanting out of doors will be necessary. Plants treated in this way do not produce runners to the extent that those planted outdoors generally do; besides, being entirely supported with young or new roots, the plants soon grow after being transferred to their flowering quarters, and are not so susceptible to the ravages of red spider as those propagated by division of roots often are. The beginning of September is the best time to plant in frames. The soil should be a good loam, with the addition of some material from a spent Mushroom bed. A dusting of soot will help to remove any wireworms which may be in the soil.

Peach Stirling Castle (S. W. FORD).—You need have no hesitation in planting this variety of Peach. It is one of the best we have, and is equally suitable to the amateur or professional gardener. It has now been in cultivation many years, and both out of doors and under glass has proved itself of the highest merit. Of medium size, delicious flavour, well coloured and prolific, it is indispensable to every collection, whether large or small. For forcing it is especially suited, and it succeeds well in a second early house. It has the valuable property of not dropping its buds, as some varieties when forced are very liable to do, and it also comes into bloom quickly with very little forcing. An additional advantage possessed by this Peach is that the stamens of the flowers always carry plenty of pollen, and all who have to do with the early forcing of fruit trees will know how a variety with this characteristic is appreciated, for a great drawback to many early forced Peaches and Nectarines is their deficiency of pollen, making it almost impossible to obtain a satisfactory crop of fruit. Stirling Castle Peach well deserves to be cultivated if only for the quantity of pollen it produces, as this can be made use of for the fertilisation of other shy pollen-bearing varieties.

Grafting Clianthus Dampieri (J. W. CROSS).—The grafting of Clianthus Dampieri, in order to overcome the difficulties of its cultivation, is by no means a recent innovation, for as long ago as 1868 there were some good flowering plants at Kew that were obtained by grafting this Clianthus on specimens of Swainsonia galegifolia. They attracted much attention at the time, and the lead was followed in several instances, but it soon died out. At that

period some cultivators failed in the grafting process owing to actions being taken from flowering plants instead of using young seedlings. At Kew Clianthus puniceus was also used as a stock, but the best results were obtained on the Swainsonia grown in a suspended basket.

Muscat Grapes failing (W. J. DAWSON).—Your Muscat Grapes are both shanked and scalded; the latter can be easily remedied, but the former is more difficult. The scalding at times appears to be due to bad ventilation or had glass, and, also, if the foliage has had free play for a time and is then stopped close, and if the Vines are near the glass the sun scalds the berries. Muscata scald sooner than Hamburgs or other Grapes; indeed, we think Madresfield Court is one of the worst in this respect. Cover the glass thinly with whitening and milk for a short time, as that will arrest the scalding. You ask if the spot is a disease. The scalding, of course, is not, but the soft imperfectly-finished berries with a dried-up footstalk are certainly the result of disease, but one that need not alarm you, as it can be checked if taken in hand thoroughly. It is often brought about by over-cropping the Vine in a young state. Vines when young crop so freely that they are often left to mature far too many bunches. Now the root-action of the plant is not strong enough to support such a heavy crop. Vines that are too heavily cropped do well for a time, then shanking or spotting of the berries commences, and the stalks shrivel before the berries are ripe. Muscat of Alexandria is more subject to this than others. The same thing occurs in poor, thin, porous soils. You may have a heavier crop this season than usual; if so, we advise you to allow the later laterals to grow freely. Cut the bunches as soon as the Grapes are ripe. Feed the Vines freely, and give them liberal treatment for some time. Shade the house lightly, and mulch the surface roots with good manure. Crop lightly next year.

Alterations in Rose garden (LONDONER).—As you are not quite satisfied with the arrangement of the varieties in your Rose garden, you could without any serious disadvantage replant the beds in October or November next. We are not surprised that you do not care for Francis Dubriell. It is not at all an effective variety in the garden, however beautiful its individual buds may be. They are very beautiful when the plants are well established, but not quite fitted for garden decoration. Grand Duc de Luxembourg we feel sure you would like if you gave it another trial. Its colour is delightful. You ask us to suggest five other kinds to add to your rosery, and we gladly do so. The five would be Liberty, Marie van Houtte, Prince de Bulgarie, Corallina, and Anna Olivier. The following would also be excellent if you do not approve of those suggested, viz., Mme. Jules Grolez, Comtesse Fesetics Hamilton, Mme. Antoine Mari, Morning Glow, Kaiserin Augusta Victoria, Mme. C. P. Sirasheim, Mme. Edmee Metz, and Lady Roberts. As you desire us to offer suggestions as to planting your garden, we may say we should arrange the sorts as follows if we were about to plant it again: The centre beds, Dr. Grill, Anna Olivier, Prince de Bulgarie, and Marie van Houtte. Then, taking the half of the rosery by the trellis, we should plant Caroline Testout and Mme. Hoste in the two end beds near the trellis, Mme. Lambert and G. Nabonnand in the two oblong beds, Mme. Ravary and Maman Cochet in the large oval beds, and Liberty and Lady Battersea in the small circular beds. The corresponding half of the rosery would be planted thus: End beds, La France and Corallina; oblong beds, Mme. Abel Chateaux and Caroline Kuster; large oval beds, Mrs. E. Mawley and Captain Christy; small circular beds, Marquise Litta and Marquise de Salisbury.

Single Sunflower (ERNEST MOON).—You have the choice of two good kinds, that with liberal fare and good culture generally will more than replace the Harpalium. The kinds referred to are both varieties of the perennial Sunflower (*Helianthus multiflorus*), and are known respectively as H. multiflorus (simplex), 4 feet high, or rather more when established, of bushy habit, free growth, and abundant flowering. The flowers are rich yellow, 3 inches or more across. The plant is a very profuse bloomer. No. 2 is H. m. grandiflorus, a much larger, paler yellow flower, very fine in every respect if less abundant in flowering. This variety is 5 feet high, and more in especially good soil. If you desire to get the best possible return in vigour and flowering you should replant these things every two years, preferably in spring, as growth is starting anew. You will also find a free division of the rootstock equally beneficial, and if to these things are added generous cultivation you will be well satisfied in the end. The two plants named are quite distinct, not only in colour, but in the form and character of the flower also.

Trailing Campanulas (W. H. STEVENS).—There are several species and varieties among the trailing members of this genus that, from their exceeding beauty and freedom

of flowering, are worth special attention. At this season of the year, for example, we have none too many really good free-flowering trailing plants in the rock garden, that is, of those kinds which are regarded as being there permanently, so that the free use of the more decorative Campanulas, and in particular those of trailing habit, should be indulged in. It often happens, however, that these plants are by no means satisfactory in the position accorded them, which is generally a sunny and exposed one, and therefore hot and dry. Now this is quite the wrong position at the outset, and it can hardly be expected that a plant preferring a certain amount of shade can do well in a position quite the reverse.

PUBLICATIONS RECEIVED.

Le Chrysanthème: Transactions of the Massachusetts Horticultural Society; Bulletin de la Société Nationale d'Acclimatation de France; Bulletin of the Agricultural Experiment Station, Rhode Island; Board of Agriculture Pamphlets on "Feeding Poultry"; Boletim da Real Associação Central da Agricultura Portuguesa; Bulletin of the American Association of Park Superintendents.

TRADE NOTE.

ORR'S STORING TRAYS.

ORR'S STORING TRAYS are really portable shelves for the purpose of sorting, storing, handling, or exhibiting fruit, bulbs, seed Potatoes, or any light goods. It is only claimed for the trays that they are a mechanical means of handling fruit from the tree, of packing for market or until wanted for home use, but in these uses alone they are most valuable to the fruit grower. The stock tray, considered to be the most convenient for handling and storing fruit, bulbs, &c., weighs only 6lb. and measures 28 inches by 25 inches by 5 inches, the floor being made of rounded slats. The advantages of this system are: Ease of grading, of picking out ripe or decayed fruit, of packing for market; handling and bruising reduced to a minimum; quantities readily estimated, and economy of space and cost of fruit room. If the trays are taken to the trees the fruit can be graded directly on to them, where there is light and room for the operation, and the least amount of trouble involved. The construction of the floor of the tray (rounded slats) while obtaining lightness for it, and free ventilation for its contents, also checks any tendency for them to roll, so that fruit can be carried safely and conveniently on them. From 30lb. to 40lb. of fruit can be put on a tray. The trays are well made and finished, as with ordinary care they would last any number of years. Extreme accuracy in their manufacture is necessary, as each tray is composed of thirty-three parts, put together with sixty-five nails, and has when completed to be the exact duplicate of any other one, on to, or into which it may have to fit. Though perhaps costing more than fixed shelving, the compact way in which fruit



A PAIR OF ORR'S STORING TRAYS.

can be stored admits of a minimum cost for the fruit room itself. These trays are manufactured and sold only by Mr. John P. White, The Pygmy Works, Bedford.

* * * The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.

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[SEPTEMBER 17, 1904.]

THE COMING ROSE SHOW.

THE exhibition of Roses that will take place on Tuesday next under the auspices of both the Royal Horticultural and National Rose Societies is in the nature of an experiment, and we fear the display will not prove so interesting as would have been the case if the show had taken place last year. Sunny days there have been, but cold nights and drenching rains have held the buds in check and sullied the open flowers; at least, this is our experience, gained by visiting several gardens in which Roses are largely grown.

But, in spite of unkind days just before the show, we shall no doubt see much to interest and admire in the Roses at the Royal Horticultural Hall next Tuesday, and probably a fairly keen competition. If the show has no other effect than of stimulating hybridists to bring Rose beauty into the garden in August and September, and even into October, it will have helped forward an excellent work.

Climbing Roses that will flower in autumn are few in number. A beginning has been made with such hybrids as Dorothy Perkins, which is, at the moment of writing, covered with its bright rosy flowers, and as many as possible of this type in other colourings will be as welcome as the fairest sorts of June and July. The garden in autumn has changed its complexion. Bedding plants which rot with the first breath of frost no longer dominate, but in their place clouds of Starworts, Lilies, Sunflowers, Golden Rods, Kniphofias, and other flowers fill the border and bed with a warm colouring, and not least in the throng is the Rose, which in its many variations, when the weather is reasonably pleasant, will bloom with great freedom. Those who have quiet sheltered gardens filled with Roses will be the most successful on Tuesday. We know many of these fragrant spots, where the flowers are dyed a deeper colour in September, and are as profuse as in full summer. Many a faultless flower will be gathered from Marie van Houtte, Anna Olivier, Caroline Testout, Augustine Guinoisseau, and the Chinas and Hybrid Chinas for next Tuesday's exhibition, which will be even more instructive than the great display in early July in the Temple Gardens. A Rose that will bloom well in autumn may be considered a good garden variety, and not merely of exhibition value, and for that reason the would-be rosarian or seeker after varieties not yet acquired should be busy taking notes.

The National Rose Society during the past few years has displayed a praiseworthy vigour, and the establishing of this show is the latest development. We hope that it will be successful, and, even if it is not this year, there is no reason why the exhibition next autumn should not prove so. Summer shows are not always a success, and an opportunity is offered to all who love the Queen of Flowers to help the National Rose Society by attending the first autumn display, and thus give their support to a departure which deserves encouragement.

VALUELESS APPLES.

It may be stretching a point, perhaps, to say that any Apple is absolutely valueless, because even the most inferior and insignificant-looking fruits can be put to some purpose; but we mean by valueless Apples those which fetch little or nothing in the open market, and in seasons of comparative plenty, like the present one, are not worth the trouble of picking with the object of selling them for culinary purposes. Covent Garden is not the place to find the examples referred to, because, in spite of the fact that all the produce sent there is not above criticism, people know that rubbish does not meet with much favour in the central market of the Metropolis. Really to understand what is meant by valueless Apples one should get away from London, and attend one of the local fruit markets in the west of England; or, better still, make a tour through the orchard land in that part of the country, and note the kind of fruit which many of the trees produce. Never is the importance of growing good fruit of high class recognised varieties more clearly emphasised than in a season of plenty, for facts then show that good fruit will sell, but inferior stuff is valueless. Recently I have had opportunities of attending some of the fruit markets in one of the finest Apple-growing districts in the country, and have seen a variety of produce offered for sale. It is only fair to say that some of the fruit is good, and though the best always commands the highest price one sees such strange mixtures of bad, good, and indifferent spread out before the auctioneer, that one gathers the impression that the good samples are presented with the object of helping out the second and third rate ones. It is evident that this mixing of all sorts does not have a good effect on the market, for though the poor Apples fetch quite as much as they are worth, the presence of poor produce has an effect on the sale of that which is much better. When a market is full prices rule low throughout, even though one-half of the fruit may be good and the other half poor, and I think that the presence of a large percentage of the latter is responsible for really good fruit being sold at a lower figure

than it would be otherwise. The rank and file of Apple growers, too, have a good deal to learn about the importance of grading, for not half enough attention is paid to this matter. Here, too, one may observe an obvious want of system, for those growers who do grade their fruit, and present even samples of distinct varieties, do not get the reward they should for the extra care they take, because in the rush of the auction the difference between one or two graded lots amid a score or more of all sorts and sizes is not noticed. When only a few odd lots in a big fruit auction are graded they certainly fetch a little more money, but it is the buyer who really gets the benefit. What is wanted is more co-operation amongst producers. Instead of every grower sending his fruit into the market just as it pleases him, if the Apple growers in a district would agree to act in unison, and send nothing but good graded samples, the tone of the auction would be raised, and the better prices obtained all round would more than repay for the slight loss which might be incurred through having the small fruit left on hand.

It is generally admitted that there are plenty of home-grown Apples in the country just now and prices are ruling low, but it is quite likely that a month or two hence English fruit will not have to go begging, and then the Americans will step in with their barrels of nicely graded samples, and we shall hear the old story again about foreign competition. One has only to attend local fruit sales to understand the reason why British Apples are often so scarce only a few months after they are apparently so plentiful, because it may be seen what little attention is paid to systematic storage. The one idea of the British farmer who has an orchard of Apples seems to be that of getting the fruit into the market at once, so as to wipe his hands of it, and there is no doubt that the profitable sale of Apples which must be disposed of at this season is spoiled through long keeping, late varieties being rushed into the market along with them. The other day I was surprised to see a really fine lot of Blenheim Orange offered for sale next to a lot of Lord Suffield. The former sold for a price that was heart-breaking to the grower, but if he had kept the fruit till towards Christmas he would have made money of it. It is an indisputable fact that British orchards do not supply the million with nearly so many Apples as they ought to do, and one reason is that growers rush all their fruit into the market at once instead of holding back the varieties that will keep till people ask for them.

From the fruit in the market let us turn to the orchards, and there may be found quite a plethora of what we call valueless Apples. Growers may contend that they are not valueless, because they can be utilised in the cider-mill, but if these scrubby, inferior, nameless, and unsaleable varieties were replaced by good sorts, the best examples could be sold for table use and the cider-mill might claim the seconds

and thirds. In the majority of orchards in the west of England may be seen—in some cases a few, and in others many—large old trees, the fruit from which is never sent to the market, because it possesses no value there, and it hangs on the tree till it falls naturally and is ground up for cider making. Cider is, of course, a wholesome beverage, and as a home industry the making of it is worth encouraging, but the varieties of Apple we describe as valueless are not even cider Apples, but they are utilised for that purpose, because they will make a liquor of some kind and are fit for nothing else. If people are to be persuaded to drink cider it must be good and should be made of suitable fruit, not by grinding up any kind of rubbish such as is done in many cases at the present day. We hear a good deal about the neglected, overcrowded state of the trees in the home orchards in this country. Alas! it is all too true, as a tour through any Apple-growing district proves, but in many cases we are convinced that a radical sweep away would be a better course than attempts at renovation. In the case of good saleable varieties it would doubtless pay to clean and feed the trees and thin out the superfluous wood with the object of getting better fruit, but what is the good of spending time and money over such operations in the case of trees the fruit from which possesses no market value?

Old fruit trees in country districts are like old customs—they die hard, and, though not given to pessimism, I look for no great improvement in old orchards so long as the existing trees remain, for hundreds of them are too far advanced for heading back and re-grafting, and there is a natural and deeply-rooted aversion towards cutting a tree down while there is a spark of life left in it. In consequence of this the good varieties will continue to be picked and sold, while the valueless Apples will still encumber the earth and glut the markets. There are hopes for the future, however, because the fruit growers of this generation, though reluctant to abolish existing trees, are alive to the importance of good varieties, and any man who plants an Apple tree to-day may be trusted to secure a good variety. G. H. H.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 20.—Royal Horticultural Society's Committees meet; National Rose Society's Autumn Show.

October 5.—National Chrysanthemum Society's Show at Crystal Palace (two days).

October 12.—Royal Botanic Society's Show.

October 25.—Croydon Chrysanthemum Society's Show (two days).

November 1.—Bournemouth Chrysanthemum Show (two days); Brighton Chrysanthemum Show (two days).

November 2.—National Chrysanthemum Society's Show at Crystal Palace (three days); Southampton Royal Horticultural Society's Show (two days); Highgate Chrysanthemum Show (three days); Lowestoft Chrysanthemum Show (two days); Portsmouth Chrysanthemum Show (three days).

November 3.—Weybridge Chrysanthemum Show; Colchester Chrysanthemum Show; Forest Gate Chrysanthemum Show (three days).

November 4.—Windsor and Eton Chrysanthemum Show; Battersea, Clapham, and Wandsworth Chrysanthemum Show (two days); Hinckley Chrysanthemum Show (two days).

United Horticultural Benefit Society.—The eighteenth annual dinner of this society will be held at the Holborn Restaurant (Venetian Chamber), High Holborn, W.C., on Wednesday, October 12, at 6.30 p.m. Mr. W. A.

Bilney of Weybridge has kindly consented to preside on this occasion. The committee hope that all honorary and benefit members and their friends, who can possibly do so, will endeavour to attend and give the chairman their hearty support, and so help to make the dinner a thorough success as in past years.—W. COLLINS, *Secretary*.

The British Gardeners' Association.—The official Journal of the Department of Agriculture, Belgium, contains an article entitled "Le Groupement des Jardiniers Anglais," by M. Louis Gentil, Curator of the Botanic Gardens, Brussels. It is largely a translation of the history and objects of the British Gardeners' Association, full particulars of which have been published in THE GARDEN. M. Gentil is in full sympathy with the association, and thinks it cannot fail to do good. He deplores the want of cohesion among the horticultural societies in Belgium, and says "we have no powerful central organisation." M. Gentil believes that Belgian gardeners of all classes will watch the progress of the British Gardeners' Association with keen interest.

Chrysanthemum trials at Tamworth.—One of the chief events of the year in connexion with the popularising of the early-flowering Chrysanthemums is to take place on Saturday, the 24th inst., at Tamworth. Mr. William Sydenham of Bolehall House has in recent years devoted considerable attention to these plants with the object of showing their value in the hardy flower garden from August onwards. In his efforts he has been singularly successful. Much useful information has been acquired, and since disseminated by means of conferences, exhibitions, &c., and each succeeding season finds Mr. Sydenham continuing his work. The trial this year is a thoroughly good one, each variety being seen in proper form and condition. The plants are arranged in alphabetical order, thus simplifying an inspection of the complete collection. Some 300 were planted in May, and most of the plants have made very large and bushy specimens. For some weeks past many of the sorts have flowered profusely, and by the 24th inst. many will be at their best. The opportunity is unique, and those who can spare the time to visit the trial and exhibition to be held on the same occasion cannot fail to profit by doing so. Tamworth is served by the London and North-Western Railway and Midland Railway, and the stations are some ten minutes' walk from the trial grounds. A small charge is made for admission, and the sum thus derived is handed over to the Society for the Prevention of Cruelty to Children.—D. B. C.

Japanese garden at the World's Fair.—After a visit to the Fair one cannot but be impressed by the activity displayed by the Japanese. Wherever they have made an exhibit it ranks among the best and attracts great attention. Although their efforts have been directed mainly along industrial lines, yet much has been done from a decorative standpoint, the most important feature of which is the Japanese garden, situated at the western end of the cascade territory on a small hill 40 feet to 50 feet high. It is about three or four acres in extent. With its elevations and depressions this spot is admirably adapted for the purpose, and was selected by the Japanese landscape gardener as the only suitable situation in the grounds. The garden is a replica of a portion of the Imperial Garden of the Mikado, and is the work of the Imperial gardener, Mr. Yukio Itchikawa, whose ability is shown by the tasteful arrangement of the grounds. The entrance to the garden is rather imposing. The gates, which are always open, are very large and massive, and are decorated with the Royal crest. The main walk turns to one side, leading up to the entrance of the Japanese commission house and to the reception hall, which is just beyond the crest of the hill. The highest point in the garden is almost in the centre, and is crowned by a group of staminate *Cycas revoluta*, planted out in the open ground, some with stems 5 feet high. The really pleasing feature of the garden is the lake at the foot of the hill. It is edged with porous limestone rock, and suitably planted with a variety of typical Japanese plants. In the centre of the broadest part of the

lake is a small island, connected by two artistic bridges. A large Japanese Maple (*Acer palmatum dissectum*) is planted at one end of the island near a stone garden lantern, and produces a fine effect. A ford of stepping stones gives a passage across the narrowest part of the lake. The treatment of the banks is especially pleasing. At one end the bank is quite steep, and is faced with porous limestone rock, from the top of which flows a miniature cascade. Numerous pockets or openings in the rock admit a number of Azaleas, dwarf Bamboos, and a number of well-known Japanese shrubs, including several plants of *Nandina domestica*. At the top of the bank overhanging the cascade is a large trained specimen of *Wistaria chinensis*, about 4 feet high, with a stem several inches thick. Considerable interest is also centred in a large and varied collection of Chrysanthemums, which are planted in the open ground, behind the reception hall. Japanese Chrysanthemum culture is well illustrated, and they are looked forward to by all as some of the best varieties in Japan, which have never been exported, are contained in the collection.—Geo. E. McCURE in *American Gardening*.

Prizes for model gardens.—Through the kindness of Captain Hmdsworth, Goodham, Ayrshire, prizes were offered at the annual flower show held at Symington, Ayrshire, for the best model gardens. The competition was confined to the parish of Symington, but there was a keen competition, much interest being taken in the class. The prizes were adjudged as follows: First, Mr. James Landsborough; second, Mr. Thomas Niven; third, Mr. James Love. The models were generally well planned and arranged, and creditable to the competitors.

Zephyranthes × Ajax (hort. Sprenger).—I believe that this is the first hybrid *Zephyranthes* raised in gardens. I saw it flowering splendidly in a border in a garden on the Vomero Hills, near the old Castell, St. Elmo. The parents are *candida* × *citrina*, and the cross is exactly intermediate. The leaves are a little broader than *candida*, bright green, and produced in spring; the flowers appeared here in midsummer and continued till October. They are canary yellow colour, often tinged with red outside on the top, stamens and style are also yellow. It comes quite true from seed, which is freely produced. The flowers open well only in sunshine; when closed they are very similar to a *Crocus*. In every way this *Zephyranthes* is a welcome addition and well worth cultivation. It is a good pot plant. We may also hope to hear about other hybrids next year, as I saw some promising seedlings.—W. MULLER, *Naples*.

The Loganberry.—I am very pleased to see so much interest taken in the Loganberry, as it is a valuable fruit, being exceptionally free-bearing, and the quality is excellent, a piquant flavour which I esteem when the fruit is eaten fresh and also when it is cooked. I have several plants of it, and intend to plant more in the autumn. The growth made since they were put in last April is tremendous, the shoots being strong, leafy, and of great length. I have not tried The Mahdi or any of the other new Blackberries, but if they are more prolific than the Loganberry they must be very good indeed. My plants are against a rough Oak paling, and have thrust everything else aside in their hurry to cover every inch of wood. I am not quite certain how to prune it. Will someone advise me?—T. E.

Propagating the Loganberry.—I see on page 112 (the 13th ult.) in THE GARDEN that Mr. G. Wythes says that the Loganberry should be propagated by suckers, the same as the Raspberry. The way we propagate it here in British Columbia, and also the method by which it is increased at its home in California, is by slips. Every slip will make a strong plant, and I have often got five or six from one shoot. Often the shoots throw out offshoots or little branches, and every one will root if properly layered. The Loganberry is being planted very extensively on the Pacific Coast. It does remarkably well in this dry climate.—G. A. KNIGHT, *Mount Tolmie Nursery, Victoria, B.C.*

Ceanothus Indigo.—The various garden forms of *Ceanothus* make useful and showy plants for beds or groups in shrubberies, as they have a long flowering period, which commences in July and lasts until October. Among the many varieties the flowers of several are of various shades of blue, and the one under notice is of that number. In the case of most, however, the colouring is very pale, but with *Indigo* it is deep, making it perfectly distinct from any other; in fact, it is the most showy of all. Like the other garden *Ceanothus* it grows well in rich, loamy soil, and does best if spurred back in spring to within a few eyes of the old wood. Should very sharp frost set in during winter it is advisable to scatter a little Bracken or hay among the branches. So far it is not well known, as it has not been in commerce very long.—W. D.

Tamarix Pallasii var. rosea.—Under the name of *T. hispida* var. *estivalis* this lovely autumn-flowering shrub was sent out a few years ago. It is the most showy member of the genus, and is likely to become very popular in gardens. *T. Pallasii* is a native of Eastern Europe, and is also found in Afghanistan. It grows to a considerable height and flowers in August. The variety is still in a small state, the largest plants at Kew being only 5 feet or so high; these, however, have been cut fairly hard back on two occasions. The foliage is very pretty, being of a greyish shade. The flowers are pink and borne in dense, stiff axillary racemes along the greater part of the current year's wood, a branch forming one long panicle of blossom. The chief item towards its success appears to be to obtain good strong annual branches, the flowers not being so good from the weaker shoots. It is necessary to give rich soil and to prune the branches back fairly hard in spring. Flowering begins early in August and continues through September. At Kew a bed of it may be seen in flower near the Succulent House.—W. D.

Onopordon polyecephalum (sp. nov.)—One of the finest Thistles I have ever seen is now flowering under this name. It was sent in the form of seeds from Turkestan two years ago, and from the first appearance of the seedlings it was apparent that this species would prove distinct on account of the formidable armour the leaves carried. Spines, quantities of them, 1 inch or 2 inches long, rendered handling the plant a difficult matter, and as the thirty to fifty headed inflorescence appeared from the beautiful rosette of leaves the spines became 6 inches long and even more numerous. When in full flower the plant resembled an enormous candelabra, every flower-head was 5 inches across, and coloured a rich pink-purple, really a bright colour very showy. It is a stately plant that one could use isolated in a small bed or in borders. I have seen all the *Onopordons* known to cultivation—*Acanthium*, *bracteatum*, *illyricum*, *Sibthorp's* species, and *tauricum*, but none of them is so handsome as this newcomer. The silver whiteness of the leaves and stems, the remarkable number of spines, and the handsome flowers, together with a stately yet compact habit, render this the most striking of Thistles.—G. B. M.

Herbaceous Pæonies.—Those who propose to move or restock herbaceous Pæonies should choose the present time, for the tubers are making roots that help the buds to develop during early winter, and these make all the difference between success and failure to flower the plants well next season. The dry weather of the past three months has ripened growth prematurely fully three weeks before the normal season, and buds are weak, but with the rainfall that now appears general all over the country there should be no difficulty in moving Pæonies with perfect safety so that they will flower next season. They all delight in a rich soil made tolerably firm, and one should give them plenty of headroom so that the stems may become strong, thinning the buds freely if they appear unduly numerous at planting time to direct the plants' energies to a few of the strongest leads. Propagation may be carried out now with strong stools, each tuber with a firm bud attached will grow well, if it does not flower, in the following season. A better

method of increase, that does away with the necessity of lifting the stools and breaking them up, is likely to commend itself to the amateur, who would be sorry to lose flowers for one season. This is to cover the stools with 8 inches of light soil made firm; growths will push through this in spring readily enough and will flower well, but in September following the resting buds will be found on independent stems 6 inches long and with a mass of roots at their bases. These should be detached and replanted forthwith, and the old soil cleared from the stools to admit warmth, when they will develop many buds hitherto latent, and which they always have in reserve. These will flower in the course of the season, and the amateur finds himself still in possession of vigorous flowering stools and a colony of young plants besides. The flowering strength of the stools is but little impaired, but a vigorous thinning of several weakly growths may be necessary in the second season.—G. B. M.

Montbretia rosea.—Vigorous clumps of this fine old plant are always a source of pleasure in August and September, and although there is the possibility of many new hybrids surpassing it in colour effect, it will always be valued for its freedom and graceful yet vigorous habit. Its bulbs are very large for a *Montbretia*, more resembling *Crococsmia* than anything else, and each produces several stems, which are generally eight to ten-branched, and bear quantities of pretty rosy tinted, *Tritonia*-like flowers, four of the petals of which are carmine spotted low down, and they expand so widely as to measure nearly 2 inches across. There is no marked colour variation, so far as I am aware, but I notice the salmon tints that underlie the rose are more intensified in a deep, rich soil, and in my experience one cannot cultivate the plant too well. Clumps 3 feet high and through are by no means uncommon, and there is a dainty poise in the inflorescences that many hybrid *Montbretias* lack.—G. B. M.

Colchicum Bornmulleri.—This is without doubt the finest and most beautiful of all the *Colchicums*. It has a large bulb, larger than a man's fist, and several flowering growths are produced from each; in fact, one may expect a dozen flowers from each bulb if in good condition. They are nearly a foot long, and have stout, angled, greenish tubes, and rosy lilac petals of considerable substance. The exquisite form of the flowers is seen best when they are raised to the eye-level on some rockery ledge, whilst specimen clumps growing in grass are none the less charming on a sunny day, the deep white pool in the centre of each flower is a very distinct and beautiful feature. Though still a rare plant it is of rapid increase. Huge seed-pods appear with the leaves in spring, and the seeds germinate on the slow but sure principle, whilst the bulbs generally split up into two every season. *C. speciosum album* is the next best *Colchicum*, its flowers are a pure white, and very beautiful. Its value, however, is still reckoned in guineas, so that it will be some time before one can have it in quantity for the one great use for which *Colchicums* are especially adapted—grass planting. *C. Bornmulleri* is much more reasonably priced. It is a plant with a great future in the embellishment of English gardens. A deep and heavy loam suits it best.—G. B. M.

Two hardy white Jasmines.—That there are two distinct forms of the hardy white *Jasmine* grown in gardens seems to be very generally overlooked, yet such is the case, and both are very freely distributed. Take first the white *Jasmine* itself, the *Jessamine* of old writers, which inhabits a considerable tract of country from Persia to Northern India, and is said to have been introduced as long ago as 1548. At all events, it has for generations been a popular plant for cottage walls, arbours, &c., the white sweet-scented blossoms, whose tint contrasts so markedly with the deep green of the prettily divided leaves, making it an universal favourite. The other form is of strouger growth, the individual flowers larger, and with a slight purplish tinge on the exterior, which is more pronounced in the bud state than afterwards. The young leaves and growing points of the shoots are

also tinged with red, which is wanting in the older form. The larger one is the variety affine of the "Dictionary of Gardening" and the "Kew Hand List." I have also met with it under the name of *Jasminum grandiflorum*, but the true species bearing this name is a native of Malaya, and is, therefore, tender. While many of the greenhouse and stove *Jasmines* bear white flowers, yellow is the colour most represented among the hardy ones, for of this hue we have *J. floridum*, from China; *J. fruticosum*, Southern Europe; *J. humile* (syns. *J. revolutum* and *J. wallichianum*), Himalayas; *J. nudiflorum*, China and Japan; and *J. primuminum*, Yunnan.—T.

Laburnum caramanicum.—This very interesting and little-known plant is one that is well worth growing on account of its late flowering. In general appearance it differs widely from the better-known spring-flowering species, and has at various times, by different botanists, been called *Podocytisus caramanicum* and *Cytisus caramanicus*; it is now, however, admitted to be a true *Laburnum*. It is very widely distributed, being found in Asia Minor, Albania, to Southern Greece and other places. At Kew several plants are to be seen, which were obtained from Mr. Transon five or six years ago. Its habit is that of a loose-growing *Cytisus* rather than a *Laburnum*. It grows but a few feet high, and is thinly clothed with small, trifoliate leaves, the centre one of which is much larger than the others. The flowers are produced during August and early September; they are deep yellow in colour, nearly half an inch long, and borne in large, loose, terminal panicles, the whole inflorescence being 9 inches to 12 inches in length. It grows under the same conditions as species of *Cytisus*, but takes longer to make a good sized plant than most other hardy Leguminosæ.—W. DALLIMORE.

NOTES ON HARDY PLANTS

HARDY YUCCAS IN GROUPS.

WHETHER space can be afforded, and suitable situations can be found for them, the hardy *Yuccas* should be grown. Few hardy subjects are so distinct in leafage and manner of growth as these; but to see them to the best advantage they should be arranged in bold groups, and in the immediate vicinity of such trees and shrubs as are best fitted to form a harmonious contrast to them. Perhaps the best situation for them is a sloping bank or piece of land, fully exposed to the midday sun, and backed up by evergreens of some kind. Thus placed, and allowed ample space for development, they will gain in beauty from year to year, and when in bloom will form a striking feature in the pleasure ground. The handsome spikes of large cream-coloured flowers are extremely effective, especially when thrown into bold relief by the mass of verdure behind them. *Yuccas* like a well-drained soil, and thrive well where the subsoil is pure chalk. They delight in full exposure to the sun, and enjoy the shelter from rough winds which a stronger vegetation is capable of affording them; hence the advisability of planting them in tolerably close proximity to trees or shrubs of some kind which may screen them, not only from rough westerly gales when in bloom, but will also insure them against the withering influence of easterly or northerly wintry winds. The *Yucca* is a hardy plant, but the foliage of several of the most ornamental species, such as *filamentosa*, is apt to get either torn or discoloured when the plants are growing in free exposure, and when the leaves become much injured the decorative value of these fine hardy subjects is much diminished. A little discrimination in the choice of situation will, however, be all that is necessary to ensure their perfect safety in this respect, and there are few gardens where suitable accommodation could not be found for them.

In grouping *Yuccas* a wonderfully fine as well as a more free and natural effect is obtained where a proportion of the specimens employed have attained sufficiently large dimensions to raise the head of

foliage some 3 feet to 6 feet above the soil; these tall plants should not, however, be placed in a regular manner in a back line, but one here and there should be allowed to advance somewhat into the foreground, with some of the smaller specimens nesting at their feet. The effect of a group thus arranged charms by its irregularity and quaint beauty, and forms a picturesque and distinct feature in the garden landscape. I have often thought that we do not sufficiently value these noble hardy plants, for one seldom sees a bold, free use made of them, the owners of gardens generally being content with employing them on the dot system, which cannot be said to convey an adequate idea of their high qualities. It should be the aim of all who may have a large extent of pleasure ground to embellish it with plants of an enduring character, to create as much diversity as possible; this can be well effected by grouping families of plants having distinctive features in situations most favourable to them, avoiding as far as possible all semblance of regularity and formal outline. The Yuccas, offering as they do a complete contrast to all other forms of hardy vegetable life, may be made good use of in carrying out this idea, for by their means alone a distinct and interesting piece of garden scenery may be created. As before stated, the hardy Yuccas are children of the sun, and they do not as a rule flower freely unless they get a good baking in the summer; they need apparently a large amount of maturation to perfect their growth and prepare it for the production of bloom. With respect to soil, they can scarcely be termed fastidious, but it must be well drained. They appear to be perfectly at home where the subsoil is pure chalk, attaining a rude vigour, and flowering freely when thus situated.

J.

THE PASQUE FLOWER (ANEMONE PULSATILLA).

ABOUT ten years ago the late Mr. G. Wilson gave me a nice plant of this Anemone. It had one expanded flower and many buds in various stages of development. I planted it in a raised bed in light loam, and there it is still, a fine healthy specimen, which annually delights with a profusion of fine purple blooms. From this plant I have raised many seedlings, but until last year I had no success in getting them into the flowering stage. I kept them in the seed-pans the first season, and planted them out the following spring just before they began to grow. I put them in the same soil that I found so suitable for the parent plant, but only about half-a-dozen out of fifty grew away. The next lot I put out in early autumn, with equally unsatisfactory result. Evidently something was wrong, and it then occurred to me that this Anemone must belong to that class of plant which, like *Stipa pennata* and *Polygonum vaccinifolium*, can only be safely removed after growth has fairly commenced and just as new roots are pushing out. Last spring I set out about 100 seedlings just as they were making their second leaf, and not more than five of the lot failed. The Easter Anemone or Pasque Flower is exceedingly attractive when in bloom, and if one can only get a colony of a score of plants to take on perennial vigour the effect is very fine. There is a white variety of this Anemone named White Swan, which is apparently somewhat scarce at present; but it is curious that, in a general way, there is so little tendency to variation.

J. CORNHILL.

MECONOPSIS INTEGRIFOLIA.

MECONOPSIS INTEGRIFOLIA is now in flower in Messrs. Bee's nursery at Neston, Cheshire. It turns out rather a surprise. From the size of the flowers it has been customary to think of the plant as the giant of the family. But as grown here it has more the appearance of an alpine. The soft hairy leaves are lanceolate and entire, and have not so far exceeded a maximum length of 12 inches. The flowers, each borne on a stout peduncle, 12 inches to 14 inches long, measure when fully expanded 4 inches across, and are of a delicate soft yellow colour. They rise in continuous succession

from the thick tuft of leaves. It is an additional attraction to this fine plant that, in contradistinction to most other Eastern members of the genus, it is expected to prove a perennial. Its present habit and appearance quite confirm this belief.

Messrs. Bee only ventured to trust one plant out of doors last winter, and, curiously enough, it has flowered, while the others, carefully tended in pots under glass, have failed to do so. The plant is growing in a very shady position, under a north hedge in the neighbourhood of a frequent but intermittent supply of water.

Meconopsis integrifolia is not a Himalayan plant. Its habitat is in the high mountainous regions of China and Tibet. The seeds from which the plants were raised were gathered by the Koslov Expedition, sent by the Russian Government to Central Asia.

Other rare *Meconopsis* in Messrs. Bee's nursery are the tall-flowered iridescent *M. grandis*, the variable *M. racemosa*, with flowers shading from deep purple to palest lilac, and seedlings of the rare *M. bella*. This last species is considered by the few who have seen it on its native rocks as perhaps the most beautiful of all Himalayan plants. Unfortunately, it has proved impossible so far to raise it past the seedling stage. It grows on wet rocks, constantly surrounded by cloud and mist, but never getting direct rain. These conditions it seems impossible to reproduce. W. COURTS.

AN EXCELLENT WHITE LATE TULIP.

TULIPS are among the most useful bulbs in the garden, especially those of decided colouring. The double kinds last longest, and this is of considerable importance when they are planted in the open garden. It is astonishing how long some kinds remain in bloom, *La Candeur* especially. We grow this both under glass and in the open, and no double late white Tulip gives so much satisfaction. Last spring it was splendid in groups alone and mixed thinly amongst *Myosotis*. Some of the blooms lasted nearly a month. One feature worthy of note in this variety is that the sun does not spoil it, as it does many white flowers. Where a white Tulip is wanted for decoration this is most useful. Added to this it is a good grower, and the bulbs can be had cheaply. J. CROOK.

ROMNEYA COULTERI AT CULZEAN CASTLE.

FAVoured as it is by a mild climate, Culzean Castle, the Ayrshire seat of the Marquis of Ailsa, presents many opportunities for the cultivation of difficult or tender plants. For some time experiments have been going on with such plants, and the successes have been notable. *Cordylines*, *Bamboos*, *Eucalypti*, *Palms*, and other things of the kind have been attempted with general success, although the winds prevent the *Palms* from attaining their full beauty. Among the finest plants this year have been the *Romneyas*, of which there are a good number of plants of *R. Coulteri* in the open. These have done remarkably well, and some were upwards of 9 feet high and flowered very satisfactorily. Mr. David Murray, the Marquis of Ailsa's experienced gardener, is to be congratulated on the success of the *Romneyas* here. S.

PÆONIES IN GRASS.

ONE of the boldest things we know of in wild gardening, and certainly the most brilliant, is the putting of a group of scarlet *Pæonies* in meadow grass. In the future of our gardens there is a good deal to be done by the tasteful cultivator in considering well the positions suited for some kinds of plants. It is easy to so arrange plants, for example, that are very handsome in spring and early summer, but do not continue in perfection into early autumn, so that their effect when out of flower, or even their disappearance altogether, will not mar any "composition." The point is a very important one and well worth attending to. *Pæonies* are among the plants that deserve this kind of attention. If they are grown for their flowers only, or their buds, or for the purpose of increasing them, they may be placed in nursery lines in some rich part of the

kitchen garden. In such a position one would soon have enough to spare for putting a bold group in some place.

THE PURPLE ORPINE

(SEDUM PURPURASCENS.)

NONE of the Stonecrops, or Livelongs as they are sometimes called, are so variable as the British species *S. Telephium*. No fewer than twenty forms have received names either as sub-species or varieties, but of these our native *S. purpurascens* is as showy as any of them, and the most desirable for cultivating as a border flower. It grows from 1 foot to 2 feet high, and has stout erect stems furnished with roundish fleshy leaves, and terminated by dense broad clusters of blooms usually of a bright rosy-purple hue, but sometimes white. It is not an uncommon plant, and may be found generally distributed about the country, usually growing in hedgerows and thickets, where late in summer and in autumn it produces its showy blossoms. In the garden this Stonecrop, and indeed all the other varieties and allied species of about the same size, are particularly useful for planting in places which would be too dry for other plants, such as on rough rockwork and dry borders; of course they prefer, however, to be treated as liberally as other plants, and well repay any attention by growing and flowering more vigorously. When cut, the flowers last a long time in perfection; the stems are so tenacious of life after they have been severed from the root that they are often called Everlasting Livelongs. W.

ROSES—PAST, PRESENT, AND FUTURE.

BY THE LATE DEAN HOLE.

(Continued from page 176.)

OF course, we shall secure under glass a sure and ample display, but when we have one of those genial Mays of which we read much and see little, we shall find more richness of colour and a larger development of form in the Roses which grow upon the wall. Other distinguished climbers, although not members of the *Rosa alpina* family, have risen to pre-eminence since the arrival of *Maréchal Niel*, and claim a place in every large rosarium; *Rêve d'Or*, 1869; *Belle Lyonnaise*, 1869; *Mme. Bérard*, 1870; *Bouquet d'Or*, 1871; *Cheshunt Hybrid*, 1873; *Reine Marie Henriette*, 1878; *William Allan Richardson*, 1878; *Mme. Alfred Carrière*, 1879; *Reine Olga de Wurtemberg*, 1881; *L'Idéale*, 1887; *Turner's Crimson Rambler*, 1893; *Alister Stella Gray*, 1894; *Paul's Carmine Pillar*, 1895.

All these are excellent. *Cheshunt Hybrid* loses too soon the beauty of its complexion, but we may not be hypercritical with the few crimson Roses which climb, and *L'Idéale* varies in her behaviour, like the damsel who

"When she was good, she was very, very good,
But when she was bad, she was 'orrid."

But the rest, like *Phyllis*, "never fail to please." They are excellent for walls, pergolas, trellises, and pillars, and also, with the climbers previously named, for planting in shrubberies. From the room in which I am writing I can see a dozen *Gloire de Dijon* Roses blooming, some 10 feet from the ground, in a clump of evergreen and flowering shrubs. They seem to salute me with a friendly and familiar nod, smiling their sympathy with one who appreciates, admires, and loves them. The bright colours of the flowers and the dark foliage of the shrubs make a charming contrast—the most successful formation which I have seen of a "Mutual Improvement Society."

The combinations are infinite, and I may cite, as a striking example, a Crimson Rambler making love to a Silver Maple, *Acer Negundo variegatum*, the more remarkable, because the Rambler, in accordance with his title, prefers to roam abroad in perfect freedom, as a bachelor unattached. The happy vagabond is terribly distressed in gaol.

The American Rose *Wichuraiana* and its hybrids are of recent introduction. Lord Penzance's Sweet Briars must not be omitted from the foreground of those borders in which we blend our Roses and shrubs.

Success depends, of course, upon obedience to the immutable law of labour, faith which worketh by love. Sentiment in easy chairs, and books, and pictures, and bouquets do not produce beautiful Roses. They require manure and a hoe.

In further fulfilment of my promise to make a selection of the fittest from the different classes of the Rose, I pass from the climbing varieties to those of lowlier stature which are most reliable for beauty and endurance, not only for their form, but for their staying powers. Among these the section known as Hybrid Perpetual has not only maintained a long and universal pre-eminence, but has monopolised almost exclusively until a recent date the admirations and attentions of the hybridiser, the exhibitor, and the connoisseur.

It may be noticed *en passant* that the boundaries which divide these two sections are by no means so broad as they are generally supposed to be. A large number of Hybrid Perpetual and other Roses, especially the Teas, will develop a surprising vigour when planted against a wall or trained upon poles in a congenial site and soil. Intimations of this power may be found in our budding grounds (I measured a branch of my namesake, Reynolds Hole, 9 feet in length), and observant rosarians, acting upon these suggestions, have given us our Climbing *Devoniensis*, Captain Christy, Jules Margottin, Niphotos, Perle des Jardins, and Victor Verdier. The multiplication and improvement of these Hybrid Perpetuals is marvellous. I have before me the catalogue of one of our most honoured, enterprising, and successful Rose merchants, in which he enumerates 260 varieties of the Hybrid Perpetual Rose. Not one of these was in existence fifty years ago! General Jacqueminot and Jules Margottin arrived in 1853, Senateur Vaisse in 1859; all the rest have come to us in a lovely procession during the last forty years.

I have grown, and have shown successfully, the best of these Roses which were in our gardens before I ceased to exhibit, and since that time have added to my collection the new varieties of superior merit, so that I could readily present to my readers a long and reliable list; but it is my present object to promote the appreciation of the queen of flowers, and to extend, through the usual process of annexation, Her Majesty's Empire, by helping those who

are inclined to begin, or have only just begun, the culture of the Rose, and therefore I make such a selection as will most surely recompense a small outlay of time and money with a great encouragement and a beautiful reward. I commend, accordingly, La France (also included with the Hybrid Teas), Mrs. John Laing, Ulrich Brunner, Prince Camille de Rohan, Captain Christy, Duke of Edinburgh, Grace Darling, Her Majesty, Charles Lefebvre, Baroness Rothschild, Prince Arthur, and Merveille de Lyon.

For the amateur desiring a longer list I propose: Alfred K. Williams, Dr. Andry, Etienne Levet, Fisher Holmes, Francois Michelin, General Jacqueminot, Gustave Piganeau, Louis van Houtte, Mme. Gabriel Luizet, Mme. Eugene Verdier, Margaret Dickson, Marie Baumann, Paul Neron, Reynolds Hole, Senateur Vaisse, Sultan of Zanzibar, and Victor Verdier. There are other candidates for admission. The Hybrid Perpetual Roses, which for more than half a century have been pre-eminent as Court favourites, the *elite* of the *beau monde*, associating almost exclusively with "our set," are now confronted by rivals, who not only claim to meet them side by side as equals, on great festivals, in high places, even in the Palace (Sydenham), but are preferred by many rosarians for their more delicate and diverse tints, their exquisite form, their glossy foliage, and their longer continuity of bloom. With a slow but sure success they asserted their claims to our admiration. I remember a time when of the nurserymen Mr. Benjamin Cant, and of the amateurs Mr. Hedge, both from Colchester, were almost the only exhibitors of Tea Roses, and the *Souvenir d'Elise* of the former, and the *Mme. Bravy* of the latter, were envied by the brethren like Joseph's coloured coat. Adam, *Mme. Willermoz*, *Souvenir d'un Ami*, and *Devoniensis* were more commonly shown, and none who saw will ever forget three blooms of

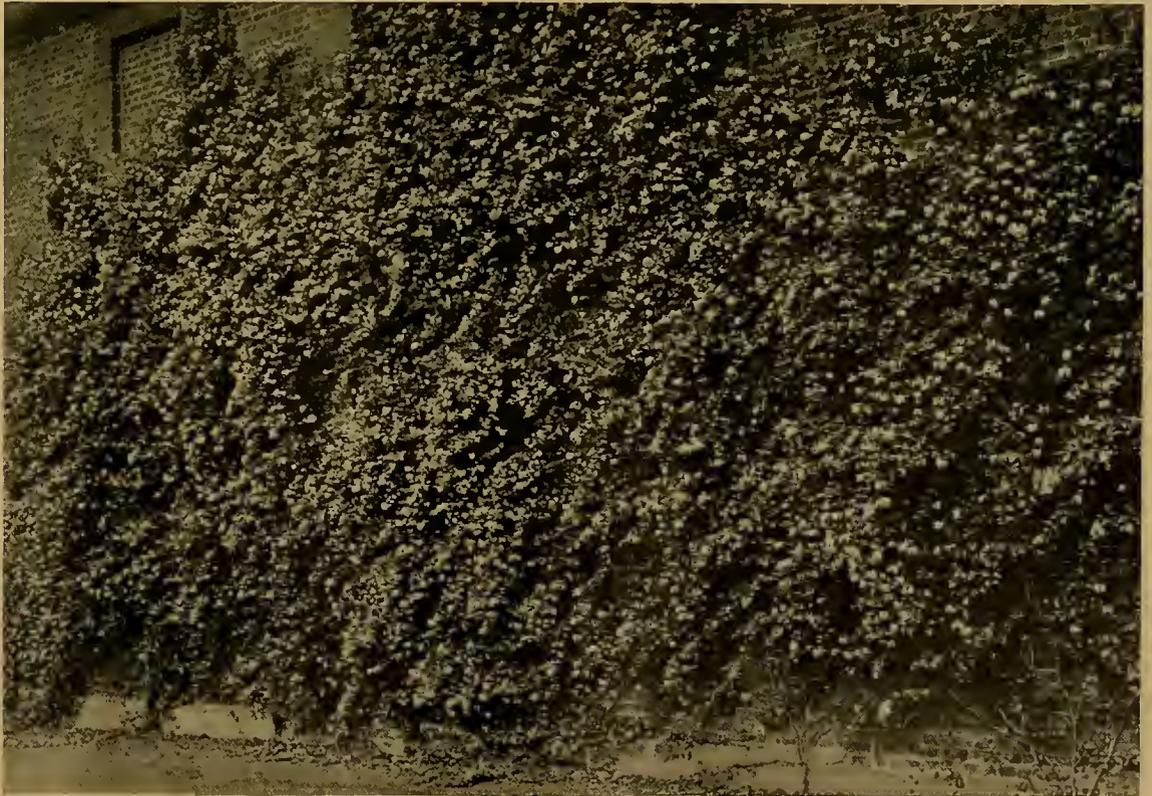
the latter Rose, which were sent by John Keynes from Salisbury to the Birmingham show. As one of the judges, I was quietly making notes and observations with my learned brothers, when we stopped suddenly, simultaneously, like soldiers at the "halt," and with eyes and mouths wide open we gazed, first at the flowers, then at each other, like children astonished at a pantomime, and wanting to know how it's done.

(To be continued.)

NOTABLE GARDENS.

LANGLEY PARK, BUCKS.

AMONG the many country homes in the delightful county of Bucks, Langley Park, the residence of Sir Robert Harvey, Bart., is not the least interesting; it possesses several features that are well worthy of notice by those interested in gardens. The house is situated amid surroundings that only the pen of Gray did justice to. The park that encircles it is finely timbered with Oak and Elm that our forefathers of some 300 years ago planted so wisely and so well in various counties, and perhaps especially so near the Royal domain in the bordering counties of Berks and Bucks. The pleasure grounds around the house and the fruit and vegetable garden abound in conifers; the collection is an extensive one, and contains several unusually fine specimens, *e.g.*, *Abies nobilis*, *A. grandis*, *Wellingtonia gigantea*, *Pseudotsuga Douglasii*, and others. During recent years the grounds have been greatly improved; what, two years ago, was a huge mass of Laurel and *Rhododendron* is now a picturesque grassy glade bordered on the one side by a shrubbery filled with good things, while on the other the lawn



THREE YEAR OLD HONEYSUCKLES AT LANGLEY PARK, BUCKS.

stretches away beneath stately Wellingtonias towards a wilder shrubbery, and a small water garden with Nymphaea-covered surface and Iris-clothed margin gives a touch of freshness and relief. Glancing down the glade one gets a view of the park, whose giant trees, solitary, in twos and threes or in clumps, suggest, as it were, the heavily wooded hills and vales that lie beyond.

The most remarkable tree at Langley Park is the Lebanon Cedar, probably an unique specimen in this country. It is situated close to the house, and its huge dark limbs, whose branchlets sweep the ground for yards around, produce an effect at once gloomy and grand; this, however, is somewhat relieved by the beds and borders bright with summer flowers and the various tints of green and grey of other trees near by, insignificant though these seem beside the giant Lebanon. Mr. Gillies, the head gardener at Langley Park, has kindly sent the following measurements of this tree: Circumference of trunk, 24 feet; diameter of spread of branches, 48 yards; circumference of spread of branches, 150 yards; height, 80 feet to 90 feet. The average growth made by the branches this year is 9 inches. Another most interesting feature of the garden is a Honeysuckle-covered wall, which, together with the Cedar, we are able to illustrate. This wall is some 25 feet high, and, although the plants were only put in two years ago, they have now practically reached the top of the wall, as may be seen. Mr. Gillies has given them fairly liberal treatment, but they have not had much attention beyond never being allowed to want water. Such a growth of Honeysuckle in two seasons is remarkable. There are three or four plants.

Even without the Lebanon Cedar and the Honeysuckle, however, Langley Park would still be well worth a visit in order to see the Japanese garden. This was made and planted in the winter of 1901 upon the site of a stable

yard, and a glance at our illustration of it in its present form will show what a transformation has been effected. A stream, placid and rippleless it is true, moves slowly and circuitously between banks clothed with the mammoth-leaved Gunnera, Berberises, the grey-green graceful leaves and stately plumes of the Pampas Grass. A Crimson Rambler partly hides the woodwork of the rustic bridge that spans the water, its rich scarlet blossoms drooping to the water's edge, and meeting their own bright shadow reflected there. Clumps of Bamboos, Japanese Irises, Lilies, Funkias, and other plants in pleasing association suggest Japan and her own peculiar taste in gardens. Bamboos thrive amazingly at Langley Park; there are some splendid clumps of Arundinarias and Bambusas. As a matter of passing interest it might also be mentioned that Mr. Gillies grows Mangoes under glass most successfully; he has produced fruits that Sir Robert Harvey declared to be as good as any he had tasted in India. H. H. T.

THE WARREN, HAYES, KENT.

THE gardens at The Warren, Hayes Common, have been so long associated with all that concerns the welfare of the Carnation that the garden-loving public have almost come to regard its productions as indissolubly identified with the progress of this delightful flower. To Mr. Martin R. Smith lovers of gardening will always be indebted, for he has largely added to our collections of this plant. Few persons are aware of the extent to which the cultivation of these beautiful flowers is carried. We first saw the plants that had flowered in the open border. They were disposed in a series of serpentine beds, with a number of small square beds cut out of the lawn alongside, the latter being used for plants of one variety, and certainly a most effective method of planting too. The layering of these plants was completed and, all drought notwithstanding, looked full of promise. To show the immense amount of work entailed in the cultivation of the Carnation we may mention that

10,000 are layered outdoors, 10,000 in pots under glass, and no less than 15,000 seedlings are also raised in one season. It is difficult to appreciate what these figures actually mean, but to see the work in actual progress is very convincing indeed. Four men had been layering for some weeks on the occasion of our visit in late August, and their labours would not be finished until the end of September.

The light and roomy glass structures in which the plants are flowered are ideal for the purpose. There are several houses specially set apart for the purpose of seed-saving. An immense number of seed-pods were developing, and others were maturing, and spread out on a mat in a sunny position we saw what seemed to be some hundreds of specially-designed paper seed-pockets, each bearing the nature and history of its contents. The names of the varieties crossed were duly noted on each packet, and these, if used in raising seedlings at this establishment, are duly entered in a register that the parentage and other useful facts may be traced as occasion arises. It may be wondered what becomes of many of the plants, and that the system even in this matter may be appreciated, one instance will, perhaps, suffice. In the houses where the plants are ripening their crop of seed, we noticed that some of the labels had a bar of blue paint across them and others a red bar. Upon enquiry we were informed that these marks denoted that in one case the plants were to be perpetuated, and in the other case they were to be discarded. In this way a high standard is maintained.

From the Carnations we passed on to the Chrysanthemums. None of the plants appeared to be in pots more than 9 inches in diameter, and quite a large number were being grown on single stems in 6-inch pots. Almost without exception the plants gave evidence of skilful culture; the wood was well ripened, and the buds in many instances were developed in excellent time. The plants were arranged along the edges of the paths of the kitchen garden, and were better sheltered from the wind than those grown in gardens more exposed. Of the more recent introductions we noticed good plants of Lady Cranston (sport from Mrs. Barklay), Dorothy Pywell, Mildred Ware, Bessie Godfrey, F. S. Vallis, General Hutton, Mrs. Dunn, Sensation, Maud du Cros, Masterpiece, Mrs. Greenfield, Lord Hopetoun, Godfrey's King, and Guy Hamilton. The foregoing were some of the better Japanese. Incurved sorts were coming very well, and bid fair to give a good account of themselves later. Mr. Blick is a well-known grower and exhibitor of the Autumn Queen. The Grapes looked well, some of the Vines carrying heavy crops of large bunches of well-coloured berries. The somewhat new variety Appley Towers was very fine and large, and bearing handsome bunches. Lady Hutt is another somewhat new sort that is highly prized here. The bunches hang till March, and they are of a grand flavour.

The orchard house, with its trees in pots, is always worth a journey to see. Peaches, Nectarines, Plums, Pears, &c., were to be seen, and others were outside for succession in a specially erected wire enclosure. The herbaceous border, like many others this season, was suffering severely for the want of rain. Most of the plants had shrivelled long before the blossoms had matured, and such a state of affairs is a matter in which we can all sympathise. Plants of late summer-flowering perennials, such as the herbaceous Phloxes, should have



THE FAMOUS CEDAR OF LEBANON AT LANGLEY PARK. (Height, 80 feet to 90 feet; spread of branches, 150 yards round; girth, 24 feet.)

been at their best, but they were represented by shrivelled and burnt specimens. The same remarks apply to many other plants. A rock garden is now in course of formation. This is situated in a cool and sheltered position. The plants already planted are thriving well, and the rock garden bids fair to make a welcome addition to the other features of this interesting garden.

D. B. C.

BOLD WATERSIDE PLANTS.

(Continued from page 175.)

BUTTERBUR (*Tussilago Petasites*).—This is a noble plant when in its largest state, and a little colony of it looks pleasing by the banks of a stream, where it delights to spread.

The Burdocks, too (*Arctium*), though they naturally affect poor, dry soils, attain enormous dimensions by the side of water, but they must not be planted so near that their roots are submerged.

SWEET FLAG (*Acorus Calamus*).—This is a Reed-like plant, growing some 3 feet or more in height. It is a very vigorous plant, and soon spreads itself over a wide area, and will overrun plants of weaker growth if not checked. It is, however, a handsome plant, and the highly aromatic leaves make it the more desirable. It should be planted at the base of a projection, or, better still, around an islet, so that it may be kept within bounds. The Bur Reed (*Sparganium*) is somewhat similar, but more tufted than the Sweet Flag, and not nearly such a rapid grower.

THE GREAT BULRUSHES OR CAT'S-TAILS (*Typha latifolia*), which in autumn are furnished with black, club-like flower-spikes, though abundant in many parts of the country, should always be planted where not indigenous, as they are so distinct in aspect from most water plants. *T. stenophylla* and *T. minima* are alike graceful plants, growing in tall, dense tufts.

PONTEDERIAS, of which there are three species, are about 3 feet high. They have arrow-shaped leaves and blue flowers of various tints, produced on stout stalks well above the foliage. The three kinds require to be planted in 1 foot or so of water, and are therefore well adapted for planting a little way from the margin. Another noble plant which, unfortunately, is not quite hardy is *Thalia dealbata*, a Maranta-like plant from South Carolina, growing some 6 feet in height, with large, handsome leaves of a glaucous green hue.

FLOWERING RUSH (*Butomus umbellatus*), one of our native plants, should adorn the margins of every piece of ornamental water, as it is not only an elegant plant as regards foliage, but its blossoms, which are produced in large umbels, are rosy tinted and beautiful.

THE WATER PLANTAIN (*Alisma Plantago*) is a bold plant, which often attains 3 feet in height. It grows in watery ditches and edges of streams. The leaves are broad, similar to those of the Great Spearwort.

CALADIUM VIRGINICUM is a noble Aroidaceous plant, having large, broad leaves, arrow-shaped, and of a deep green. It is excellent for planting in shallow streams or pools, in about 6 inches of water. It rises 2 feet or 3 feet in height in a manner similar to the Callas or Richardias, which should on no account be omitted. Other highly ornamental North American water plants are the

GIANT HORSETAIL (*Equisetum Telmateia*).—This is an extremely fine plant when fully grown, and one which attains several feet in height in moist, shady places, producing graceful plumes of pendulous, thread-like branches in drooping whorls of a cheerful green colour. It is by far the finest of all the Horsetails, but seldom seen in full growth. The finest group we ever saw was in the garden at Bitton, where Mr. Ellacombe had it growing near a wall, and there it had a very handsome appearance.

There are many other plants, which though not strictly aquatic, flourish well near water, and have a fine effect, as, for example, the Flame-flowers. Other plants may be similarly treated, such as the



IN THE JAPANESE GARDEN AT LANGLEY PARK.

Giant Knotweed (*Polygonum cuspidatum* and *sachalinense*), *Astilbe rivularis*, *Senecio japonicus*, North American Lilies, several of the larger *Spiræas*, *Trollius*, the Royal Fern (*Osmunda regalis*), *Lysimachias*, and many others.

is more obscure than those of sight and hearing there is the delight of "fragrance," which, "as has been well said, is the song of the flowers." Lavender is no new aspirant to popular favour, but enjoys the dignity of old-world associations, for from the time it was first cultivated in this country—more than 300 years ago—its perfume has been valued by the housewife, and the snowy folds in the Cedar linen-chests of our ancestresses were scented with the odorous sprigs that lay enscenced within them.

A LAVENDER GARDEN.

TOWARDS the close of July the space within the fences surrounding the quaint old homestead might well be termed a Lavender garden, although many old-fashioned flowers beloved of our grandmothers and dowered with the priceless gift of fragrance, such as Bee-balm or Bergamot, Woodruff (with its scent of new-mown Hay), Allspice, Rosemary, Clove Carnations, Balm of Gilead, double Rockets, Southernwood, and Cabbage Roses find places in the beds, but, even before the wicket-gate is reached, the air is filled with the perfume of thousands of flowering spikes of Lavender. On one side a Lavender hedge, separated from the adjoining meadow by a deep ditch and bordered by a narrow path, runs the whole length of the garden. On either hand of the porch stand two huge bushes of Lavender, and Lavender again fills the whole of a plot some yards in length and breadth just within the hedge of Monthly Roses that faces the winding village road. From above the lattice windows, into which Jasmine and Honeysuckle peer, the house-martins pass and re-pass to their nests beneath the wide thatched eaves, fleeting visions of black and white. In the air there is a murmurous hum, the wing-song of the busy brown hive-bees and of their burly yellow-banded cousins the humble-bees as they rifle indiscriminately the blossoms of Lavender, Rose, or Carnation, while, like winged flowers, butterflies, white, yellow, or blue, flutter nonchalantly hither and thither.

There is no jarring note to mar the ideal peace of the Lavender garden. The eye is charmed with the white summer clondlets drifting gently across the deep blue sky, and with bird and blossom: the ear is lulled with the soft music of the bees, and for the sense that

The first growers of the Lavender in this country were the Huguenots, who, when they fled from France, continued its culture in England. The valley of the Wandle was the favoured spot with these originators of the industry in our land, and the names of Lavender Hill and Lavender Sweep still remain as evidence of an industry that the increase of population has now driven further afield. At the present time Lavender is chiefly grown in the Surrey district of Mitcham and in the neighbourhood of Hitchin, in Hertfordshire, though not many years ago the celebrated perfumers, Messrs. Piesse and Lubin, cultivated a considerable acreage of the fragrant plant in close proximity to the Crystal Palace. Although the Lavender is a native of Southern Europe, Northern Africa, the Canary Isles, and Persia, and might, therefore, be considered too tender to withstand the rigours of our more northern climate, it sustains but little damage from frost except during very severe winters. The flowers of the Lavender are either used for distillation or are cut and marketed in bunches, in which form they are to be seen in quantity in the streets of the Metropolis and large provincial towns. Distillation still yields fair profits, though the price of the best English Lavender oil has decreased greatly of late years. Formerly Mitcham oil sold at £10 per pound, but lately has fallen to about a quarter of that price. This decline, which is mainly due to the flooding of the market with cheap and inferior foreign oil, distilled from the blossoms of the wild Lavender, has caused growers in some instances to abandon the culture of the plant, while considerable loss has occurred owing to plantations being devastated by a form of mildew.

Lavender is not exacting in the matter of soil, but extremes of richness and poverty are to be avoided, the former causing too vigorous and sappy growth, which is apt to be injured by the frost, while the latter is incapable of supplying the plants with sufficient nourishment to enable them to perfect a full crop of flowers. Fibrous loam overlying a subsoil of chalk is held to be best adapted to remunerative Lavender culture, while a slope with a southern exposure, and sheltered on the north and east, is the ideal site. Plants are propagated by taking slips from the old bushes in October. These are set in the ground in rows a foot apart, and thinned out and replanted the following autumn. In the permanent plantation the bushes stand 3 feet apart. The form

Almost all large plantations possess distilleries, which are generally large enough to permit of carts being driven in to discharge their loads of flowers under cover. Many stills are of sufficient size to contain a ton weight of Lavender. When the still is to be filled the head is lifted and the flowers shaken in from the mats and trodden down until tightly packed, when the head is secured and the furnaces started. As soon as the liquid expressed from the flowers reaches the boiling-point it runs through a coil of tubing immersed in cold water, which causes condensation, the oil separating from the water and being collected in a receptacle at the base

Raspberry Colwill's Red Diamond is the result of a selection from seedlings of the old Red Antwerp, but far superior in every respect to this variety. It is probably destined to extend the Raspberry season considerably, for Mr. Colwill writes on the 8th inst. that he is picking quantities daily, and at the remunerative price of 1s. per pound. Mr. Colwill continues: "With regard to size few varieties are equal to, and none surpasses it. It commences to fruit as the well-known sort Super-



A NEW RASPBERRY—COLWILL'S RED DIAMOND.

(Natural size. Shown before the Royal Horticultural Society last week by Mr. Colwill, Sidmouth and given an award of merit.)

known as Mitcham Lavender is most generally grown, as this variety produces the essential oil in the greatest quantity. The blossom harvest usually takes place in August. Large bushes will bear 200 or more flower-spikes, which are cut with a Lavender-hook, an implement slightly narrower and more bent than an ordinary reaping-hook. With this it is said that a practised hand will clear a bush with one sweep. When the flowers are cut they are laid on the top of the plant, whence, if destined for the market, they are collected and bunched by women. If intended for distillation the spikes are not cut until the flowers at the base have faded, this being the time that they contain the greatest supply of oil. The bloom-spikes intended for distillation, when reaped, are left lying on the bushes for two days or so, being turned once to hasten the drying, after which they are thinly spread out in the sun on Archangel mats and the drying completed. When once thoroughly dry they may be, if necessary, stored for months previous to distillation, without any danger of deterioration from mildew.

of the still, from which it is run off into dark glass bottles, holding from 5lb. to 7lb. each. The Lavender harvest is quite as dependent upon the weather as are the hay and corn harvests, and a given acreage will often, on a dull and damp summer, fail to produce half the amount of oil that it would have furnished in a favourable season. The profits of the industry are, therefore, naturally fluctuating, but anything above 25lb. of oil to the acre may be considered a fairly satisfactory yield.
S. W. FITZHERBERT.

NEW AND RARE PLANTS.

RASPBERRY COLWILL'S RED DIAMOND.

A VALUABLE late variety this new Raspberry appears to be. It was shown before the Royal Horticultural Society on the 6th inst. in excellent condition, and then obtained an award of merit. The fruits are above medium size, dark red in colour, and of sweet and pleasant flavour.

lative is almost over, and will prove a good successor to it. As to habit of growth, this leaves nothing to be desired." From the fruiting branches shown last week the new Raspberry is evidently a free-bearing variety.

CAMPANULA HYBRIDA FERGUSONI.

A good deal of interest attaches to this new hybrid Campanula, which obtained an award of merit from the Royal Horticultural Society last week when shown by Mr. F. W. Smith, gardener to G. Ferguson, Esq., The Hollies, Weybridge. The parents are *C. pyramidalis* alba and *C. carpatica*. The result of the cross is virtually a dwarf and slender *C. pyramidalis*, yet without the close setting of the flowers as in that species. It has another excellent feature, too, in that numerous stems are produced from the same rootstock. The large, cup-shaped flowers are pale blue, and are freely produced.

TREES AND SHRUBS.

THE SCOTCH FIR.

(PINUS SYLVESTRIS.)

INDIGENOUS to North Britain, where, at one time, hundreds of square miles of hill and dale north of the Grampians were covered with this tree, and abundantly planted throughout the kingdom, the Scotch Fir is too well known to need description. It may still be seen in its original beauty in the forests of Aberdeenshire, Inverness, and Perth, clothing the mountain side and glen, and yielding excellent timber of large dimensions, little, if at all inferior, to English Oak for dry building purposes. In this respect, however, it is, of course, inferior to the yellow Deal of commerce, but highlanders assure us that the finest trees south of the Tweed do not produce timber equal to their own, and this inferiority in grain and durability is ascribed by Messrs. Veitch, in their excellent work, "The Manual of the Coniferae," to climatic causes, the long and severe winters of the north, succeeded by short and hot summers, giving the trees periods of rest and great activity of growth which they do not get in the more equable climate of Great Britain. Loudon in his remarks upon the economic value of the timber says:

"The facility with which it is worked occasions its employment in joinery and house carpentry almost to the exclusion of every other kind of timber wherever it can be procured. It is at once straight, light, and stiff, and consequently peculiarly

fitted for girders, joists, and rafters, which may be made of smaller dimensions of this timber than any other. In point of durability, if it is kept dry, it equals the Oak, more especially if it has been of slow growth and is resinous. The Larch, its greatest rival, of late years has been most extensively planted, and certainly for use in a comparatively young state it is preferred in England; but then it is questionable if the soil as well as the milder climate of the south has not something to do with the quality of English-grown Scotch Fir, as all writers assert that the granitic formations so extensive in Scotland, independently of greater age, contain the elements most congenial to the Scotch Pine."

Ready and willing to yield the palm to the north, not only for immense clean trees, but also for economic quality, as lovers of picturesque trees and great planters of conifers generally we may point with pride to numbers of most beautiful specimens, many of them of great age, now beautifying our parks and giving the artist's finishing touch to the best arboreal scenery throughout England. There are many fine specimens near London, as observant travellers in the home and southern counties can testify. Some very fine clumps, a furlong apart on either side the long straight road leading from Heckfield to Strathfieldsaye, reflect very great credit on the taste of the planter, Lord Rivers, I believe. These are comparatively young trees, but having got into the splendid loam which underlies the Heath-clad sandy peat, they will be the admiration of all passers when another century has passed away. I wish I could say a good word for the modern

planter who has blocked these fine groups by covering the whole of this heath with young trees, now growing like Willows. Had the Farnborough vandal entered this out-of-taste copse he might have done the district good service.

Several varieties of the Scotch Pine are grown, but that called *Pinus horizontalis* is considered the most valuable timber tree. It is distinguished by its rapid and robust growth, by the horizontal or drooping direction of its branches, by its broad glaucous foliage, and by its producing cones but sparingly. This is supposed to be the true and original Highland Pine, and as such has been distributed all over temperate Europe. Soil, however, for there is no denying the fact that this tree enjoys a good root run, situation, and altitude, make a wonderful difference in the habit, contour, and colour of all conifers; so much so, that unless all the varieties could be seen growing together, I should say here we have a distinction without a difference.

When planted in large masses or broad belts, the Scotch Pine, owing to its quick growth and hardy constitution, is a useful tree for forming screens and as a nurse for tender conifers, which often grow freely enough when thoroughly established on our bleak hill-sides. As a single specimen on the lawn, like its rival the Larch, it is not despised, but to know it in full beauty it must be seen with its clean red stem, 30 feet to 50 feet in height, capped with glaucous grey branches, rising out of, or backed by, dense deciduous foliage. These clean-bolled stems, as a matter of course, are produced by close planting, drawing up, and self or natural pruning. W.



AN AVENUE OF FIRS.

ORCHIDS.

LÆLIO-CATTLEYA ELEGANS.

FOR the most representative collection of this beautiful natural hybrid one must turn to that owned by R. H. Measures, Esq., The Woodlands, Streatham. Here may be found the most valuable varieties known. The season of growth and flowering of L.-C. elegans and its varieties is most varied, and in a large collection like the one under notice some form or other may be had in bloom at almost any time of the year, but the best season is during the months of July and August. To discuss all the noteworthy specimens in this superb collection would take up more space than we have at command; but mention should be made of L.-C. e. var. R. H. Measures, one of the choicest varieties, having sepals of a somewhat peculiar but most pleasing colour, a soft cream yellow tinged with green and lightly touched with rose. The petals are flushed with rose and pencilled with darker lines, lip a bright purple dashed with fire-red; a broad stripe of the same colour passes from the front area to the foot of the column; with that exception the remainder of the inner surface is a soft white, on the outer side soft rose tipped with red-purple. The two varieties L.-C. e. Sylvia and L.-C. e. Rupert superba, which have flowers of enormous size, are probably the two finest forms of elegans known; but for varieties alike noteworthy for their remarkable colouring and form mention should be made of L.-C. e. Woodlandense and L.-C. e. F. Sander. The former has sepals of a buff colour suffused with pink, the petals, which are very much broader with undulated margins, being of a soft rose-lavender; the lip is of an intense maroon-purple shading to light purple on the margins. The sepals and petals of the variety F. Sander are of a dark red-crimson tint. The massive labellum is of an intense bright crimson dashed with purple running to the column base. The rich purple apices of the side lobes stand well up; the remaining area being sulphur yellow and rose on the inside, and white shaded with rose and crimson on the exterior. In addition to those bearing distinctive names, there are many forms which in any other collection would be considered worthy the honour of varietal names.

ARGUTUS.

WORK FOR THE WEEK.

LÆLIO-CATTLEYS AND THEIR HYBRIDS.

THE season has now arrived when judicial admittance of sunshine to this section of Orchids is of the utmost importance, preparing them for the dull, damp, and foggy days of winter, when so many that are apparently well grown collapse. During the past summer we have had ideal weather for these plants, so the growths produced are much firmer in texture than last year, yet much remains to be done to prepare them for the coming winter. When the compost used contains leaf-soil it is even more necessary to mature them well. The growths are now at various stages, so it is desirable to congregate those that have finished growing to one part of the house, so that more sunshine may be allowed to reach them than would be good for those not so far advanced. The supply of water needed by those that are approaching full development is much less than by those in full growth. Most of the Cattleyas Mendelii, Mossiae, and Schröderæ are still growing, and every encouragement is needed to hasten them. The autumn-flowering Cattleya labiata should be given as much sun as is possible without causing injury to the leaves. After the flowers are cut off trouble often arises from a rot setting in, which generally causes the loss of the leaf and sometimes the bulb; this is reduced to a minimum if they are properly ripened. L. pumila, L. præstans, and L. dayana should have a free supply of water till the flowering season is past. No further shade need be given to L. anceps.

The beautiful L. crispa now in flower only requires enough water to prevent shrivelling till growth again starts. L. Perrinii may be treated

likewise; also C. gaskelliana and C. Eldorado. Many plants of Cattleya gigas are now emitting roots from the new pseudo-bulb, offering the best time to repot or renovate the surface material. After potting they will require very little water until growth starts in the spring. C. aurea and the lovely hybrid from these two, C. hardyana, should also be seen to as regards potting after the flowering season is over if they emit oew collar roots. I would not advise repotting this or any other Cattleya or Lælia at this season if new collar roots are not visible. These hybrids should be repotted when new shoots are being emitted.

By the time the middle of October is here I like to see the deep green colour of the leaves changed to one of yellowish green; the colour will soon be restored if the plants are well rooted when the dull short days are here, although the sun changes the colour for a time, it will help to prevent disease. Give air, especially bottom air, freely, and during the morning some top air will be beneficial. Whenever the days are dull and damp a fair amount of artificial heat is necessary, and rather than take off the air increase the fire-heat to maintain the temperature, which should be 67° early morning, 70° at night when the outside temperature is above 45°, rising when sun is admitted to 85° or 90°.

W. P. BOUND.

Gatton Park Gardens, Reigate.

THE KITCHEN GARDEN.

EXPERIMENTAL WORK IN THE POTATO FIELD.

BURGOYNE'S FARM is about five miles from Cambridge Station and three-quarters of a mile from Histon Station, on the Great Eastern Railway. The farm, some 140 acres in extent, is held on lease by the Agricultural Department of the University of Cambridge, and is conducted by the University Professor of Agriculture (Professor Middleton), assisted by a competent staff of scientific experts, Mr. Henshaw being the resident manager. When the farm was taken in hand, four years ago, it was in a low state of fertility and overrun with weeds, so that the farm was one requiring both careful cultivation and liberal manuring. The improvement in the four years has been immense, for the crops are good and the land is clean. Much experimental work is being carried out with pretty well every farm crop—in making selections, hybridising, manuring, and keeping careful notes of results. A very interesting pamphlet of some twenty-five pages, descriptive of the work done, is published by the Agricultural Department.

My objective was the Potato field, and under the guidance of Mr. Henshaw we moved from plot to plot, Mr. Henshaw giving a lucid description of the management, manuring, &c., of the plants, and where the seed was obtained from. Mr. Henshaw, like most Potato growers, believes in a change of seed, and here we see Scotch and Lincolnshire fen seed in its first, second, and third seasons growing side by side. After three years the benefit disappears, but the result the second year is considered equal to the first. In the trial or test-plots some sixty varieties, or so-called varieties, have been planted. There will probably be some weeding out in the future of the varieties which are so much alike as to appear identical with others in cultivation. Each plot is one-tenth of an acre in extent, and no variety is permitted to have an outside row. The manuring was the same for every plot, and consisted of 15 tons of farmyard manure and 5cwt. of a mixed artificial manure per acre. The artificial contained 97lb. of sulphate of ammonia, 56lb. of nitrate of soda, 28lb. of bone-meal, 290lb. of superphosphate, and 98lb. of sulphate of potash. This mixture was calculated to supply 30lb. of nitrogen, 50lb. of phosphoric acid, and 50lb. of potash per acre, at a cost of about 33s. per acre. The yield and quality of the variety is the chief point to which attention is being given, but the

effects of cutting the sets and of sprouting them in boxes is also being tested, and it will be interesting to note results when the crop is lifted and weighed. The plots are in parallel lines, the rows 27 inches apart, and the sets 14 inches apart in the rows. The manure was placed in the drills before planting, and the Potatoes were planted on April 20, 420 sets in each plot. The sets were all prepared beforehand, and were as uniform in size as possible. A very few of the largest sets were cut. A further test in six separate plots is being carried out to show the effect of planting sets of different sizes, each being accurately weighed. This test will be interesting, but results cannot be known till the crop is lifted; at present there is very little difference between the different plots. These plots were planted on April 15.

Sixty varieties of Potatoes in one large field when in flower is a very interesting sight. And there is more variety in the colour of Potato blossoms than one would be led to expect who only grow a very few varieties. The flowers of several of the newer varieties are much brighter, and have tints and shades not found in the old sorts. Of course all the varieties are not flowerers, as the buds of some of the second early and early kinds drop off. But one thing which appears noticeable in the new varieties is the lack of pollen on the anthers. Of course there is pollen among some flowers, and Mr. Henshaw was on the watch for its discovery; but in a season like the present one might have expected to find every flower in a very perfect state.

One of the objects I had in view was to ascertain the best kinds of Potatoes for general planting, and in discussing this matter with Mr. Henshaw I laid special stress upon this point. Of course when all the crops are lifted further knowledge will be gained; but at present Mr. Henshaw speaks in favour of the following varieties. As first earlies there is at present nothing superior to Duke of York, Sir John Llewelyn, and Sutton's Ninetyfold. Of these Ninetyfold is the heaviest cropper, and the quality is good. Duke of York is very handsome, good cooking quality, and early; the only fault is its yellow flesh, and this would not be considered a fault where the quality is so good. Sir John Llewelyn is very highly spoken of by Mr. Henshaw.

In second earlies Findlay's British Queen is first, and Beauty of Hebron is, I hear, in the running. For maincrop at the present time there is nothing equal to the Factor (Dobbie's). It is a cross between Up-to-Date and Sutton's Abundance, and has the good quality of both parents. This is certain to be largely planted for the next ten or twelve years, or until it wears out and is superseded by some other kind not yet developed. But according to present knowledge Sutton's Discovery is the Potato of the future. It is very robust in constitution, an excellent cropper, and of good quality, and it is distinct from all other varieties that I am acquainted with. One has only to examine its growth and take note of the fibre in its haulm to be convinced of its disease-resisting energy, but the stock is yet limited. Other promising varieties are Findlay's Goodfellow, Fidler's Charles Fidler, Cramond Blossom, and General Buller.

In addition to the sixty varieties of Potatoes in the experimental plots, there are large numbers kept under observation, and are carefully rogued so that pure strains may be obtained. These include half a dozen kinds from America, of which particulars will no doubt be given in future editions of the farm pamphlet. At present all the plots are quite free from the usual disease, though in some plots of the less robust varieties there is evidence of the disease known as the curl. Mr. Henshaw thinks this is spread by want of care in selecting the seeds, and no doubt he is right. These curled plants produce only small Potatoes, and these small tubers are too often sold with the seeds. To stamp this disease out the curled plants should be treated as rogues and lifted now, and not mixed with the bulk of the crop. I have long been of opinion that the sets for planting should be selected from the most prolific roots when lifted, and kept by themselves. This matter will, no doubt, receive proper attention.

Much good work has been done during the four years the farm has been in the hands of Professor Middleton and his staff, and the future is full of promise. E. HOBDAV.

Cavendish Park Nursery, Cambridge.

P.S.—There are apparently two King Edward VII.'s in the field. At present my opinion of them is not altogether favourable. We must wait.—E. H.

SALT IN THE KITCHEN GARDEN.

DR. GIERSBERG of Berlin, a well-known German agriculturist, has just published an interesting note which calls attention to the question of the part played by sea-salt in land manuring. M. Grandeau, who analyses and comments upon this note in *La Journal d'Agriculture Pratique*, reminds us that so

manure has up to the present given scarcely any results. Nevertheless, Dr. Giersberg has had his attention called to the use made of salt by a certain number of gardeners, who say they have obtained excellent results in the cultivation of such vegetables as Cabbage, salads, Asparagus, &c. According to them the salt notably improves the quality of the crops. These gardeners have remarked also that salt given to the soil acts favourably upon fruit trees by increasing the flavour of the fruit. Can the salt, which does not act as a manure, act indirectly upon the vegetation? Does it facilitate the diffusion of the fertilising ingredients into the lower depths of the soil? We do not yet know. If it is so, plants with deep roots and fruit trees would benefit from this action. Cultural experiments undertaken in this direction at the agricultural station at Muoich have shown that in lands to which marine salt was given the greater part of the vegetables not only developed much more rapidly, but they were also much more tender and of better flavour. M. Grandeau concludes that it would be to the interest of the owners of gardens to repeat and multiply these experiments.—*La Revue Horticole.*

ANEMONE ALPINA.

THE Alpine Windflower is one of the most handsome and distinct members of a small section of the genus *Anemone*, to which has been given the name of *Pulsatilla*, the distinguishing feature of which is that the carpels of the different species composing it have feathery tails, while those of the true *Anemones* have tails which are not feathery. An inhabitant of the mountain meadows of Central Europe, from Northern Spain to Transylvania, it is a very variable plant, sometimes only a few inches high, but reaching a height of 2 feet in other places, and even more under cultivation. The leaves, which appear before the flowers, somewhat resemble those of Parsley. From an involucre of similar



THE ALPINE WINDFLOWER (ANEMONE ALPINA) IN THE ALPS.

far two points have been ascertained: (1) That the presence of chloride of sodium in the soil, as soon as the degree of saltiness is more than a very slight trace, is hurtful to nearly all plants. Cultivation is not possible in lands naturally salt until after the removal of nearly the whole of the salt by repeated washings; the operations for removing the salt are long and costly, and do not always succeed. (2) That chloride of sodium is absent from the ash of the greater part of cultivated vegetation, an absence which is proved by analysis. Soda is never met with in plants, even in minute quantities, and direct experiments show that, in spite of the chemical analogy of the two bases, it cannot take the place of potash. As a general thing, it may be said that the use of sea-salt in

leaves arise the large flowers, which are white in the typical form. The number of sepals composing the flower is usually six, but this is often exceeded, as seen in the illustration, which is from a photograph taken in the Alps, and in which some of the flowers show seven or eight parts. A plant worthy of a place in every garden, it is not difficult to establish, requiring only an open, moist situation in sandy loam. Seeds should be sown as soon as they are ripe in the autumn, when they germinate readily. It is best to sow them in a prepared bed consisting of sandy loam and leaf-soil, so that they may be left for a year or two before

planting out in their permanent positions. This work is best done in the spring. After the flower is over the fully-developed heads of silky-tailed fruits are quite ornamental. *A. sulphurea* is a yellow-flowered form, which sometimes ranks as a species. W. I.

GARDENING OF THE WEEK.

FLOWER GARDEN.

PROPAGATING BEDDING PLANTS.

WITH the exception of such comparatively hardy plants as *Calceolarias* and *Gazanias*, all cuttings of summer bedding plants should by now be inserted. If any shortage does exist this should be remedied as quickly as possible, commencing with *Heliotropes*, *Alternantheras*, *Coleus Verschaffeltii*, and similar plants which are killed by the slightest frost.

Before it is too late the *Begonia* beds should be gone over, and those especially good, as well as the poorest forms, should be given distinctive marks. Unless the flowers are unusually large, the plants which produce drooping blooms should be classed as second rate, to be finally discarded in favour of the more showy erect flowering forms. *Begonia semperflorens* does not come quite true from seed, and these will also require marking. The red-foliaged variety *atropurpurea*, alternated with *Chlorophytum elatum variegatum*, edged with dwarf *Begonia semperflorens*, and having a few dot plants of hybrid *Abutilons*, makes a most effective and lasting bed for autumn display. Cuttings of this *Begonia* will still root readily if made at a joint having a leaf, and placed in a cool shaded pit.

DAHLIAS.

Many kinds which do not possess long flower-stalks require to be relieved of a quantity of foliage to enable their flowers to be seen. The waterings with liquid manure should be continued, and at the first opportunity inspect the plants to see that they are correctly and securely labelled.

EVERLASTINGS.

If required for winter use the blooms of *Helichrysums*, &c., should be cut while the flowers are in the bud stage, and hung up in small bunches, heads downwards, in an airy shed to dry. Growths of *Physalis Franchetti* will retain their "lanterns" better if cut and placed in water until the lower leaves turn yellow. Then take them out and suspend as with *Helichrysums*.

SWEET PEAS.

Unless the soil is very cold and heavy, a sowing at the present time will produce plants which, in the Midlands and southern counties, will safely pass through nineteen winters out of twenty, and produce earlier and better flowers than those obtained from spring sowings.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

CYCLAMENS.

ALTHOUGH these plants enjoy the cool, moist evenings at this season, with the frame lights open, it will soon be too cold and damp for them to remain longer in the cold frame. Light, with a moderate amount of fresh air during favourable weather, is what they require, as then their leaf-stalks remain short and the flowers will rise above the foliage. Generally the seeds from which plants for another year are to be raised have been sown, and in some instances the young plants are well through the soil; but still from seeds sown now plants can be raised that will with care grow into a useful size by flowering time. Plunge the seed-pans in a temperature of 60°, and encourage germination by placing squares of glass over them to check evaporation and shade them.

SALVIAS.

While in the open air *Salvias* appear seldom to make very much progress, but directly they are placed under glass their foliage begins to develop. Growth that is formed in a cool, light, and well-ventilated structure is that from which to expect good flowers of the best colour, and with the pots full of roots a little stimulant may be given to assist the development of the flowers, and for the purpose there is nothing better than the liquid made from guano and applied at moderate strength.

BROWALLIA SPECIOSA MAJOR.

Plants still in cold frames must be removed to the cool house, where, if given a position near to the glass, they will make a steady but sturdy growth, and in consequence will flower abundantly. Apply to their roots weak, and often, a liquid made from guano.

BEGONIA GLOIRE DE LORRAINE

which from now to the end of October generally will grow stronger and freer than at any other season, may be assisted to do so by sprinkling a little of Clay's Fertilizer over the soil on the surface of the pot. A liquid made from cow and sheep manure should occasionally be applied, as well as soot-water. Plenty of moisture is necessary, and should be created by syringing, not the plants, but the paths and stages of the house, and a temperature of 55° should be maintained.

FREESIAS.

The earliest potted of these should be looked over, and if necessary be removed from the plunging material. Often the earliest of these get spoiled through being left too long in the plunging material, the growth afterwards remaining delicate and unable to produce good strong flower-spikes. Soot-water in moderation is a capital stimulant to apply to the roots in the earliest stages, but as growth advances liquid made from cow and sheep manure will be necessary. J. P. LEADBETTER.

The Gardens, Tranby Croft, Hull.

FRUIT GARDEN.

VINES.

LATE Grapes should be assisted in every possible way so as to have them thoroughly ripe by the end of the month, as they will then keep better during the winter. Keep the laterals closely pinched to allow more light and air to reach the bunches. Do not allow the inside borders to become dry, thoroughly water when necessary, and mulch afterwards. Where Gros Colmar is grown in a house by itself more heat should be given than is required for other late Grapes. The weather has been most favourable lately for obtaining good quality in this Grape, as it almost requires Muscat treatment.

MUSCATS.

Muscat Grapes which are now ripe and well coloured should have the temperature gradually lowered and less atmospheric moisture. A dry air is necessary, especially in dull or wet weather. Remove decayed berries as soon as they appear. In succession vineries where the Vines have been cleared of fruit and the foliage is changing colour they will be all the better for another thorough washing with the garden hose. Inside borders should also have a good soaking of water, as at this season of the year they are sometimes overlooked until they become too dry, and extreme dryness at the roots is not favourable to the ripening of the wood. Young Vines which were planted last spring will require plenty of light and air, and the lateral growths must be removed. Any planted later may be encouraged to grow for a short time yet, and will be assisted to ripen by plenty of fire-heat and air.

EARLIEST VINES.

The wood will soon be ripe, when the Vines may be pruned and cleaned and the house washed and made ready for starting. Mealy bug is a formidable enemy to deal with. To eradicate it every

part of the house, walls, and woodwork should be well scrubbed, the woodwork painted, and the walls washed with hot lime. Remove loose bark from the Vines, and especially from round the old spurs, care being taken not to injure the young buds. Well wash the Vines two or three times with a strong solution of Gishurst Compound (8 oz. to the gallon), and stop up any holes with the pure compound. By this means and persistent attention in the spring this pest may soon be reduced. Great care must be taken to remove the old mulch and all loose soil from around the stems of the Vines before top-dressing with any fresh compost. If the Vines are clean a good washing with soft soap will generally prove sufficient. Great care should be taken when it is necessary to place plants in vineries to see that they are clean. *Impney Gardens, Droitwich.* F. JORDAN.

KITCHEN GARDEN.

WINTER CROPS.

THE weather in this district is again very unsettled, cold winds with very heavy showers, but it may be called "growing weather," and winter crops are making rapid progress. Difference of opinion exists as to the advisability of earthing up these crops. In light soils it would be an advantage and, also, in wind-swept gardens. In damp gardens Broccoli should always be earthed up, as this affords protection from severe frosts. The soil will be in the most workable condition after rain, but the leaves should be dry before work is commenced. See that the soil is not drawn into the centre of the plant. If spring Cabbage has not been got in the first planting should be done at once, choosing a dry day to go on the ground. These may be planted rather closer than summer crops—20 inches between the rows and 15 inches between the plants. Brussels Sprouts are showing signs of being a good crop. In cases where they were planted late or are on poor land they should be given applications of liquid manure or some artificial fertiliser sprinkled on the ground, which will be washed in and be of much benefit.

WINTER SPINACH.

The sowing made in early August will, perhaps, be too far advanced to stand the winter. They should, however, be thinned out to several inches apart. This will provide Spinach into the winter months. As plots in the kitchen garden are now becoming vacant, another sowing should be made at once on good land. This will be more likely to stand the winter should the earlier sowing become too large. Although strong plants are necessary to stand severe frosts very large and soft growth is not desirable. For the last sowing choose as warm a place as possible. If the state of the ground permits it should be trodden over before sowing. The drills should be 15 inches apart and the seeds sown not too thickly.

OTHER SOWINGS.

Lettuce may still be sown on a sheltered spot, and if given some protection in severe weather they will come in useful for planting out in early spring. All the Year Round is, perhaps, the safest variety to sow at this date. Another small sowing of Cabbage and Cauliflower should also be made, as the earlier sowings seem likely to become too large. Very small Cauliflower plants are to be desired for wintering in frames, and if these are selected there is little danger of the plants buttoning. The larger plants may be put into a nurse-bed, and if protected in the winter will be found useful for very early planting.

TURNIPS.

It is of little use sowing after this date. August sowings will now require thinning to prevent their running to seed. Turnips ready for use may now be lifted and stored in a cool place. There should be sufficient of these to maintain a supply until the winter varieties are ready for use. Swede varieties should be thinned to 1 foot apart or the roots will be very small.

Hopetoun House Gardens, THOMAS HAY.
South Queensferry, N.B.

CORRESPONDENCE.

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

GENTIANA CRUCIATA

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With reference to the note in your issue of the 6th ult., page 87, I have much pleasure in sending you seeds of *G. Crucjata*; perhaps you might care to distribute it to applicants wishing to try and naturalise it in suitable places.

[Certainly.—Ed.] *Gentiana Crucjata* is fairly plentiful in this neighbourhood; it is very welcome, coming into flower in July, thus forming, as it were, a "stepping-stone" between the spring and the autumn-flowering species, and, like all the different *Gentians*, it possesses quite an individual beauty of its own. It is, in fact, a very pretty plant, with its heads of pleasing cruciate flowers of Cambridge blue. The flowers, each nearly half an inch across, are thickly packed together to the number of twenty or more in one terminal head, a few more also springing from one or two axils of the next adjoining leaves. The seeds germinate very freely, and I fancy such positions as the lady who found the plant describes so happily as "just on the outskirts of a wood," on chalk downs, would be admirable. Here the plant grows on shallow calcareous loam, hard as a brick, but exceedingly well drained, and apparently always "near the outskirts of some wood," but nevertheless fully exposed to the sun, in very dry places in fact. In the Bavarian Highlands, between Reichenhall and Berchtesgaden, I have lately also noticed its bulky seed-heads in quantity from a distance. Success with a few plants among the grass would doubtless ensure its further spontaneous propagation, for, like all *Gentians*, it annually ripens a large crop of seeds, if some means are adopted to prevent its pretty flowers from being cut off prematurely. Any attempt, without the aid of a pickaxe, to uproot an established plant would prove futile on account of its deep root hold. E. HEINRICH.

Planegg, near Munich, Bavaria.

THE SCARBOROUGH LILY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The modern gardener has such a long list of available plants at his command, each one of which possesses some particular charm, that there is a real danger of his forgetting some of the old favourites of a generation or so ago. One of the most worthy of these neglected ones is the Scarborough Lily (*Vallota purpurea*). Although the *Vallotas* cannot boast of that wonderful diversity of colour which is seen in the *Hippeastrums*, the glossy red blooms of the hardier plant possess all the grace and elegance of the true *Amaryllids*.

In the south and south-west of England almost a hardy plant, ordinary cool greenhouse treatment will more than satisfy the *Vallota's* requirements. But though easy to grow many people find that their plants are often very chary of blooming. The cause of the trouble is more often than not that too much attention is paid to repotting of the bulbs, with the consequent disturbance of roots. Now, *Vallotas* simply hate being unsettled, and repotting should only be resorted to at the rarest intervals. As a matter of fact the more pot-bound they are the better they seem to bloom. Far better than a removal is the occasional application of a top-dressing of fresh soil. Propagation is readily carried on by means of the small offshoots which are constantly appearing. These should be invariably removed from the parent bulb as soon as they are large enough to be handled. Potted off into small pots they will soon grow, and may be shifted in the spring into 5-inch pots, in which they will bloom. The best soil for *Vallotas* is a mixture of loam, leaf-mould, and sand. It is important in potting the plants that they should be placed very firmly in position, the soil being closely pressed around the bulb. After the plants have bloomed in the autumn, some care should be

exercised as to watering, for although Vallotas must not be dried off yet the resting period should certainly be marked by a lessening of the supply of moisture. The sorts of Vallotas cannot be said to be many, but a rather striking hybrid, with vermilion flowers, *V. hybrida*, between *V. purpurea* and *Cyrtanthus sanguineus*, has been introduced. Perhaps the most distinct form is *V. eximia*; this has red flowers, with a delicate white throat.

Reading.

P. LEONARD BASTIN.

TORENIAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—These soft wooded plants have been for several years almost lost to sight, and at this season of the year greenhouse flowering plants are none too plentiful; therefore the cultivation of such as these, that will provide a bright display with only a season's labour, are too valuable to be neglected. *Torenia*s last long in perfection. Many people would grow them if it were better known that plants can be readily raised from seed sown in gentle heat in early spring, or their increase can be effected by means of cuttings rooted in early autumn. If 5-inch or 6-inch pots are well drained, filled and pressed firmly with a sandy compost with a quarter of an inch of sand on the surface, and the cuttings dibbled in around the sides of the pots and placed under bell glasses, they will, if due attention is paid to spraying them and keeping the glasses wiped out night and morning, root readily. When well rooted they should be potted singly into 4-inch pots, and after making a start should be kept pinched and induced to become bushy. When the pots are filled with roots the plants should be shifted again into 6-inch pots, and, if larger plants are required, may be again moved into 7-inch, 8-inch, or 10-inch pots. Cuttings inserted in spring make handsome plants for 5-inch and 6-inch pots, and may also be flowered during the summer months. In winter they will require intermediate temperature, but in summer a cool house free from draught will suit them. *Torenia*s may also be grown in hanging baskets. Four or five plants, if allowed to hang gracefully, will in a very short time completely cover the basket with their beautiful blue and purple blossoms. When the pots are full of roots, and, in fact, while the plants are in flower, they are benefited by weak applications of manure, and by constant feeding will remain in bloom for a considerable time.

Stanmore.

C. J. ELLIS.

LILIUM TESTACEUM GROWING WILD

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I read in "Lilies for English Gardens" that *L. testaceum* has not been found wild. It may interest some of your readers to know that five years ago I was collecting small alpine plants on a hill above Ragatz in Switzerland, and came upon some plants in seed, which were obviously Lilies, but unknown to me in their then condition. I brought home some bulbs, and planted them with my other alpine plants in my very sandy, stony garden in Kent. For two years they put out leaves, and the year after flowered. They are now a very fine clump of *L. testaceum*, quite unmistakably. At Ragatz they were very short, and growing singly and in small clumps, but not as though they had been cast out of a garden. Besides that, they were high above the village, with no houses near. I thought that this might interest you, as this Lily seems mysterious in its origin.

Bickley Vicarage, Kent.

NORA CARROLL.

THE SOAPWORT (SAPONARIA OFFICINALIS).

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In some parts of England this Soapwort occurs plentifully, and one may frequently see the double form in the shape of spreading masses in cottage gardens. There is, however, a variety of it that is infinitely superior. It bears flowers of a very bright pink, which are produced with the utmost freedom, and is altogether a fine, handsome garden

flower. I first made the acquaintance of this variety several years ago. Happening to pass a Surrey cottage garden I saw a mass covering some square yards. The display was impressive, even from some distance, and it is worth noting that it was growing in that miserable sandy soil, of which there is far too much in this county. This Soapwort is, indeed, one of the finest things for covering the ground where other things die out. It is good for covering the soil under evergreens where a fair amount of light comes, but where the soil gets parched up in summer. I am told that it is largely used in this way in Hampton Court Gardens. For very small gardens, or for borders where choice things are grown, I do not recommend it, but it is one of the finest things we have for the wild and woodland garden, where it can ramble at will and do no harm. This *Saponaria* is truly a choke-weed plant, and once get it established it will smother even Couch Grass.

J. CORNHILL.

LILIUM GIGANTEUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose a photograph of *Lilium giganteum*. I purchased the bulb six years ago, but I think it



LILIUM GIGANTEUM IN AN ENETER GARDEN.

was kept too dry and sheltered by shrubs for the first four years. I transplanted it to a more exposed bed, and it grew apace.

FRANCES SANDERS.

The Rectory, Whimple, Exeter.

APRICOTS FAILING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Taken altogether, the Apricot is probably the most disappointing of wall fruits grown in this country. That the trees will grow satisfactorily and produce healthy foliage is no criterion that the fruits will ripen up as they should do, and this is where the failure with many lies, especially in the more northern parts and on cold soils. Given a warm sandy or loamy soil and taking care that the requisite amount of moisture is applied during the summer months, also growing the trees on a suitable aspect for the district—as even in some parts they succeed better on a west than a south wall—then Apricots may be ripened up well with the ordinary attention generally bestowed upon them. This, however, is very different to that which obtains on cold clay soils situated at high eleva-

tions, even when given a southern aspect, as, unless for cooking, it is almost useless to attempt to grow them. The Apricot, taking the fruits individually, grows at Stourport to as large a size as I have ever seen any, and this on a western aspect; but the soil being cold and the garden at a comparatively high altitude, the fruits ripen up very indifferently. Thinking to overcome the difficulty, the trees were all lifted four years since and replanted on slightly raised mounds, the border being also well drained and the greater part given up to the roots. Anyone would think that the Apricot would thrive almost anywhere, seeing that reference is often made to the trees that used to be seen against cottage walls and outbuildings. Certain it is that the branches and the roots of such trees had but little attention, but yet we are led to suppose they thrived amazingly. In those cases where they did succeed, and the aspect they were planted on was right, it was entirely owing to the soil being suitable for them. Given a suitable soil and a good aspect, then Apricots may succeed well when given the requisite attention. Certain it is that on light soils the trees undoubtedly collapse from the want of sufficient moisture. The roots of Apricots being naturally of a fibrous description, it is not in their nature to ramble far to seek nutriment, and with the borders, as they often are, cropped up to within 2 feet of the wall, and this space trodden as hard as a road, little moisture naturally can be expected to reach them. Not only is water needed up to the gathering of the fruit, but also during the month of September. The dying off suddenly of the branches is difficult to account for, for even under the best treatment a branch will suddenly collapse. In some cases it is attributed to want of moisture, the action of the frost rupturing the sap-vessels. Hard pruning of gross shoots which predisposes them to gumming is also given as a reason. I am also of the opinion that in the case of young trees the evil is laid in their earliest existence, as it is generally at the parts where the strong shoots are cut back to form additional branches that the first symptoms of decay are seen.

Y.

PLANTS THAT NEED CAREFUL HANDLING.

(Continued from page 162.)

ANACARDIACEÆ.

AMONG the best known of the Poison Ivies of North America are the following:
 (4.) *Rhus radicans*, Linn. The Poison Ivy. (*Rhus Toxicodendron*, non Linn.)
 (5.) *Rhus diversiloba*, Torr. and Gray. The Poison Oak.
 (6.) *Rhus vernix*, Linn. The Poison Sumac or Poison Elder.

The best account of these plants known to me is that by V. K. Chesnut.* *R. radicans* is best known, and has formed the subject of a research, Dr. Fraoz Pfaff of Harvard having shown that the poison is a non-volatile oil. The poison is destroyed, as Pfaff has shown, by an alcoholic solution of acetate of lead (sugar of lead). It is recommended not to use strong alcohol, but alcohol of 50 per cent. to 75 per cent. To this the powdered sugar of lead is added until no more will easily dissolve. The milky fluid should then be well rubbed into the affected skin. The itching is at once relieved and the further spread of the eruption is checked. "The remedy has been tried in a large number of cases and has always proved successful."

There is an excellent article on "The Poison Ivy—a Dangerous Plant," by the Earl of Annesley in the Journal of the Royal Horticultural Society, and a lengthy digest of it in THE GARDEN of March 14, 1903, page 174. The eczema-producing nature of this plant is well described, a number of striking instances being cited.

In the Botanic Gardens, Sydney, we have a plant of it growing on a stone wall, out of reach of

* "Thirty Poisonous Plants of the United States."—*Farmers' Bulletin*, No. 86, of the U.S. Department of Agriculture (1898).

visitors. It occasionally requires pruning, and the pruner generally protects himself with leather gloves. In the course of years we have found some men immune to its effects, while others are exceedingly sensitive. In fact, we cannot say, except as the result of experience, whether a man will be affected by it at all.

LEGUMINOSÆ.

(7.) *Castanospermum australe*, A. Cunn. "The Black Bean."—This well-known furniture timber of New South Wales and Queensland has, like the Red Bean (*Dysoxylon Muelleri*), been accused of injuriously affecting the health of workmen.

MYRTACEÆ.

(8.) *Eucalyptus maculata*, Hook. The "Spotted Gum."—In parts of Queensland timber getters and sawyers who handle Spotted Gum are sometimes affected with a rash called "Spotted Gum rash." I asked a number of timber experts: "Do you know any district in which this skin complaint prevails, and can you furnish any particulars in regard to it?"

Most questioners never heard of it, but Mr. A. Voegelé, Mt. Douglas, Paterson, N.S.W., reports: "Spotted Gum rash prevails here. Some are affected more than others. One of my neighbours that worked with me in the bush for years felt its influence if only working beside a Spotted Gum; to work one up was out of the question. If persisting in doing so he would itch, and afterwards break out in pimples. Every occasion he got affected more; at length had to sell his selection on account of it."

(9.) *Eucalyptus hemiphloia*, Fr. M. "White or Grey Gum."—I have heard on one occasion of this timber causing a rash in a man, or at least of a rash being attributed to this timber.

(To be continued.)

NURSERY GARDENS.

CARNATIONS AT EDENSIDE.

SO far as popular favour is concerned the Carnation is now admitted to be second only to the Rose, and one can hardly wonder at it after seeing the many beautiful varieties that Mr. James Douglas has in his Surrey nursery at Great Bookham. There are colours and forms to suit the most fastidious, and those who take the culture of Carnations seriously should not fail to pay a visit to Edenside. House after house is filled with plants that either are in full bloom or else are ripening seed; there are selfs, fancies, yellow ground Picotees, white ground Picotees, as well as Malmaison Carnations, and they are the very best varieties that can be obtained. *Nil nisi bonum* is Mr. Douglas' motto so far as his Carnations are concerned; he rigorously rejects all that after due trial prove not to reach the high standard that he endeavours to maintain. And this is the reason that a packet of seed saved by Mr. Douglas produces such a harvest of vigorous, free-blooming plants of excellent varieties.

Interest always centres in new sorts, so when recently looking through Mr. Douglas' Carnations we were specially attracted by the latest introductions. Daffodil was pointed out as a lovely yellow self, the best of all this class. It has large, handsome, clear yellow blooms. Until its advent Cecilia was considered the best yellow self, but Daffodil has surpassed it in the judgment of most growers; it won the first prize in 1903 for the best six blooms of any yellow self Carnation. Francis Samuelson is another very fine new sort. We remember seeing it for the first time at the York show in 1903, where it gained a first-class certificate; since then it has had three more. It is undoubtedly the best of the apricot-coloured varieties; the flowers are large, full, and of faultless form. It is highly recommended either for greenhouse or border culture. Glowworm will please those who are fond of a bright flower; its blooms are rich scarlet, and it is sent out as an excellent border variety. It received an award of merit at the Holland House show this year. Mrs. Walter Heriot is a very fine

yellow ground Picotee with a good reputation, for it was the premier yellow ground Picotee in 1902 at London and in 1903 at Birmingham. It also has received more than one first-class certificate. Chloris is a lovely thing, a delicate pink self, the colour of the variety Duchess of Fife, but with larger flowers and of freer growth; a useful border Carnation. Etna, a fine scarlet self, although sent out a few years ago, is still very scarce; it has twice won first prize at the Midland show as the best self. Duke of Norfolk, a large and handsome scarlet self; Banshee, lavender, flaked with scarlet; Bridegroom, pink self, very large; Kaffir, crimson-marone, an excellent border variety; and Molly Maguire, a yellow ground fancy, the petals flaked with rose (first-class certificate), are other good new ones.

There are many very fine sorts among the general collection of varieties, but it would be useless to give a large selection here, for Mr. Douglas is always glad to do that. We might, however, mention just a few that we thought particularly fine. Chanticleer is a rich yellow fancy, heavily marked with rosy red; Hidalgo is a deep yellow, heavily marked with deep red and marone; Montjoy is a new large purple that is sure to become a favourite; and the same may be said of Midas, considered by Mr. Douglas to be a very handsome Carnation, the colour deep orange-buff, suffused with scarlet. Wild Swan is a lovely white variety with large and handsome blooms, one of the best of whites. For a white Clove it would be hard to beat Bookham Clove, a pure white Clove-scented Carnation of vigorous growth that has received an award of merit from the Royal Horticultural Society.

Of yellow ground Picotees, of which Mr. Douglas has probably the finest trade collection in the country, we saw many lovely varieties, e.g., Alcious, lemon-yellow ground, distinctly margined with purple; Borderer, bright yellow, edged with red; Gertrude, petals broad, with a heavy bright rose margin; Ladas, with well-defined scarlet edge; Voltaire, bright yellow, edged and marked with rose; and Childe Harold, a most elegant bright rose-margined flower. This variety has won the premier prize as the best bloom at the National Society's exhibition for four successive years. Mr. Douglas has collections of Malmaison Carnations, Auriculas, Tree Carnations, Pinks (among which we may mention Snowdrift and the new hybrid Dianthus Lady Dixon), German Irises, double Pæonies, and Narcissi.

CHRYSANTHEMUMS.

SEASONABLE NOTES.

HOUSING.

BY the end of the present month the whole of the plants which have been grown with the object of producing large blooms should be safely housed, and when the weather shows signs of becoming unsettled the sooner this is done the better. Frost may set in at any time, and whenever there is the least likelihood of the glass reaching the freezing point protect the upper portions of the growths, as plants which have been well grown and highly fed are susceptible to injury. Though this may not be noticeable at the time, serious injury will result if the young buds become frozen, and will be seen when the buds begin to develop.

Gales of much severity generally occur at this season, and often do a very large amount of damage to tall-growing plants, however well they may be secured, but especially so to those which have not been properly tended in this respect. It is annoying after the care and hard work that have been bestowed on them for so long to find many of the most promising tops blown off in a short space of time. The supports should be examined, and additional stout cords stretched along to prevent their giving way. Each growth will be safe if small sticks about 2 feet in length, similar to the tips of Bamboos, are well fastened with broad pieces of bast to the tops of the shoots. As to the

kind of structures in which to arrange the plants, the Chrysanthemum is fortunately not so fastidious as many other half-hardy plants, and if plenty of ventilation, both at the sides and top, can be assured, and the roof made drip-proof, good plants should produce satisfactory flowers.

OVERCROWDING.

Far too often, owing to lack of accommodation under glass, plants which have given every promise of maturing blooms of exceptional quality are spoiled by placing them too thickly together. Many are under the erroneous impression that by this time the plant has done its most important work, and, providing it can be placed under glass, even though three parts of the foliage may turn yellow and be taken away, little harm will happen; but this I am fully convinced is a most serious error, as it is just now that every inducement should be given them to retain their leaves as much as possible, and the better the plants have been grown the more will they suffer when packed too closely together. It is far better to discard many of the plants which are not likely to give the best returns, or place them under a wall or similar position where protection can be afforded. Many of these will probably give useful late blooms for decorations when the others are past. The ventilators should be left open night and day top and bottom for some time after the plants have been taken in, except when it will be necessary to close them for fumigating, and this should most certainly be done two or three nights in succession, so that every vestige of thrip and aphid is destroyed. XL All Vaporiser is both safe and effectual when used according to the instructions.

When there is any sign of rust no pains should be spared to destroy it, and I know of nothing equal to paraffin. When persistently used at the rate of one wineglassful to every four gallons of soft water, thoroughly mixing it with the syringe when using by discharging one barrel into the vessel containing the mixture and one on the plant, making certain that every particle of the foliage is touched, it will never do serious harm. Many good blooms, I am aware, have been grown when practically every leaf has been taken off; but good as these may have been, there is no doubt that they would have been much better had they been free from fungus.

WATERING.

The plants will not get so dry as when in the open, and the greatest care should be observed as to this. Examine each thoroughly, and make absolutely certain that the plant is quite ready to receive it before giving any, and when doing so fill up the pots at least twice, and this should be done as early in the day as possible.

STIMULANTS.

The plants will need assistance at this stage, but overfeeding will do more harm than good. Weak applications and often will be the safest course to pursue. Soot water and Peruvian Guano in moderation are both excellent if carefully used when the plants are grouped together under glass. Caterpillars and earwigs often do considerable damage to the florets as they begin to unfold, and each should be rigorously sought after with the lamp at night. Keep the under sides of the leaves well dusted with black sulphur to prevent mildew spreading. The Japanese varieties should be arranged separately from the Chinese if possible, and the first-named will benefit with a little fire-heat after they become acclimatised, but, on the other hand, the incurved always resent artificial heat, and well-formed flowers cannot be expected when kept too warm. Sufficient fire-heat only should be given to counteract damp, and then only when air can be admitted freely.

SPECIMEN PLANTS.

Pay strict attention to these in every respect. Plenty of air must be allowed to play freely about them, turning the plants round every other day. Manure water should be given each time the plants are dry, as these need much assistance to enable them to perfect fine blooms and carry good healthy foliage, without which there is little beauty.

LATE-FLOWERING DECORATIVE VARIETIES.

These should be kept in the open as long as possible, but means must be provided thoroughly to protect them against frost. Temporary shelters should be erected in sheltered positions, then blinds or other suitable coverings can be placed over them when needed.

E. BECKETT.

Aldenham House Gardens, Elstree.

A GENERAL CALENDAR.

ANNUAL FLOWERS.

NOW is the best time to sow most kinds of hardy annuals. A large proportion of them will germinate at once, make strong plants before winter, and bloom earlier and stronger than those sown in the spring. A somewhat poor and dry soil should be chosen, but it matters very little if the soil is cold and damp, for we see sometimes on the worst of soils, and on the best alike, self-sown Wallflowers, Candytufts, Mignonette, Sweet Peas, and many other things that have managed their affairs in their own way, the seeds having been shed in July, germinated in August and September, and became nice little green bushes by Christmas, and good flowering plants in the month of May.

THE BEST FOR AUTUMN SOWING.

In the display of annuals there is the same room for the exercise of taste as in the display of any other kinds of flowers. I have found the following well adapted for autumn sowing: *Calliopsis tinctoria*, *C. atkinsoniana*, *Centaurea Cyanus*, *Cladanthus arabicus*, *Clarkia elegans*, *C. pulchella*, *Convolvulus tricolor*, *Delphinium Ajacis*, *Eschscholtzia californica*, *Leptosiphon luteus*, *Limnanthes Douglasii*, *Nemophila insignis*, *N. maculata*, *Platystemon californicus*, *Silene pendula*, and *Whitlavia grandiflora*.

PENTSTEMONS.

Cuttings of these should now be put in, choosing only those varieties which show healthy growth. All those with spotted or sickly-looking foliage should be discarded. To do these well a succession of seedlings should be kept up, from which may be selected those of the best colours and constitution. From these cuttings should be raised, as they almost invariably do well the first year after being propagated direct from seedlings. They strike readily in a cold frame or under a handlight if placed on a hard bottom with about 6 inches of sandy soil. Well water the cuttings after they are put in, and keep close and shaded for a few days until they begin to callus.

FIG TREES.

Some of these have made abundance of growth this season, and in most instances many more shoots have sprung up than ought to be permitted to remain. And, if not already done, it will be advisable immediately to remove a portion of their surplus shoots. Also pinch out the points of those growths that are allowed to remain. By doing this the wood will become thoroughly ripened, and the buds so well developed that a crop may be expected next year. At present much of the new growth is very tender, and if we should get a sharp winter much of this may be killed by the frost, and not only a crop lost but also valuable time.

PEACHES AND NECTARINES.

The leaves that shade the fruits should be turned aside or removed altogether, so that the fruit may be exposed to the direct rays of the sun. When the fruit is all gathered the succession shoots should be looked to, and if any of them are crowded cut back those that have borne fruit close to the base of the succession shoot. This being done let the trees be frequently syringed, and should the weather continue dry give the trees a good soaking of water.

PARSLEY.

This important vegetable should receive more attention and more liberal treatment than it

generally gets. Seed should now be sown on a border with an eastern aspect. Let the soil be good and well worked before sowing the seed. This should be in drills 12 inches apart. Cover with fine soil to assist germination, which generally takes place in from four to five weeks. As soon as the plants are large enough they may be thinned to 6 inches or 9 inches apart. This will give much better returns than if the seedlings are allowed to remain in the rows as they come up.

CAULIFLOWER VEITCH'S AUTUMN GIANT.

A sowing of this made now will furnish a nice batch of plants, which should be wintered in a cold frame or under handlights. These would make good plants for planting out in the spring, and give far better results than the smaller sorts, such as *Early London*, raised in heat in February.

T. B. FIELD.

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.

SOME RARE FLOWERS.

From the Old Parsonage, Gresford, Cheshire, Mr. Mules writes: "I send for your kind inspection a bloom of a new seedling *Rudbeckia purpurea*, which compares favourably with those at present in cultivation. It is one of the new hybrids, and, so far as I have seen, is far choicer than any that have yet appeared. I send Perry's hybrid to compare. Its diameter is 7 inches, and the colour a bright pure rose. [A very handsome flower.—Ed.] *Lychnis grandiflora* (from China), the plant figured in *Paxton's Magazine of Botany*, is a very rare and beautiful plant. You will note the salmon-coloured petals, deeply fimbriated, the bright crimson ring, and blue stamens. I send a spray of *Montbretia Tragédie*. I do not see it in our catalogues; but it is one of Lemoine's best hybrids, and is, with its large golden flowers, an admirable companion to *Germania*. Here it grows 4 feet high or more. *Phlox Lienvalli* (new) is a very pretty variegated variety, of which the white stripes are clearly marked on the edges of each petal. Here *Solanum jasminoides* does well outside, and I send you a few sprays, of which the flowers are well developed."

CLERODENDRON FETIDUM.

Mrs. Nix writes from 33, Ferndale Park, Tunbridge Wells: "I sent a few pieces of *Clerodendron fetidum* to you to-day for your table, though I fear it is not a pleasant scented flower. The rosy pink corymbs of flower are very handsome, but I am afraid it fades quickly in water. Our plant came from Cornwall, and is in a somewhat sheltered corner of a south border. It has increased very quickly, and is spreading over a large part of the border. The tallest stems are over 7 feet high. It seems quite hardy here, though we have a cold and exposed situation, and do not protect it at all in the winter."

SEDUM SPECTABILE ATROPURPUREUM.

Mr. Amos Perry, Winchmore Hill, sends flowers of *Sedum spectabile* and the variety *atropurpureum*, which is a much deeper colour and more effective. Although *S. spectabile* is a most useful plant because of its lateness, easy culture, and durability of the flowers, the colour is poor; the variety *atropur-*

pureum will meet a want, and its advent is opportune. Mr. Perry also sends a pretty new semi-double variety of *Galega officinalis*.

MUTISIA DECURRENS.

From Winthorpe, Ravelston Dykes, Edinburgh, Mr. Mowbray Watson writes: "I enclose a few late blooms of the rich orange-flowered *Mutisia decurrens*. The flowers were larger a fortnight ago. This plant has had over forty blooms this year, and has now been with me ten years. As it comes from the Chilean Andes, along with the red *Tropaeolum* (*T. speciosum*) grown all over Scotland, there is no doubt about its hardiness."

GILIA CORONOPIFOLIA.

From Bankside, Milton, Sittingbourne, Mr. C. Prentis sends flowers of this plant. He writes: "I sowed the seeds last autumn, and the plants have been in flower since early July, and they are not nearly over yet. It is very showy and valuable by reason of its late and continuous blooming. It has aroused a great deal of interest among my gardening friends."

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.—S. Abbott.—The abnormal growth on the Oak twigs is due to a gall known as the Artichoke gall, caused by the presence of the larvae of *Cynips Quercus-gemmae*.—C. E. F.—*Abelia rupestris*.—S. J. M. Price.—The specimen you send is *Acacia melanoxylon*. It is one of the few species of *Acacia* which produce both phyllodes and true leaves at the same time. Most of the species bear either all phyllodes or all true leaves.—C. E. F.—The Bamboo is *Arundinaria falcata*.—Charles Prentis.—*Lotus Tetragonolobus*.—Q. Q.—Probably *Origanum vulgare*; too withered to say positively.—J. A.—*Linaria origanifolia*.
Names of fruits.—G. Heaths.—1, Eekinville Seedling; 2, Cox's Pomona; 3, Braddick's Nonpareil.—James Tizzard.—Plum 1, Early Transparent Gage; Plum 2, Oullin's Golden Gage; Pear 1, Williams' Bon Chrétien; Pear 2, Forelle (the Trout Pear). We will name the Apples and Ferns with pleasure.

Woodlice in Melon frame (T.).—Woodlice in frame containing Melons which are now beginning to net may be greatly reduced in number by trapping before the fruit is ripe. Procure a few small dry flower-pots, put a slice of raw Potato in each, cover with a pinch of moss, and lay them on their sides in the frame. Go round every morning with a jar of boiling water, transfer the woodlice from the dry ambush to the jar, relay the traps, and persevere. Also, lay small heaps of Lettuce or Cucumber leaves about in the frames where hot water will not reach the roots or foliage of the Melons. Examine these heaps every night, and pour boiling water over the pests when feeding. Woodlice may be prevented from doing much harm by placing each fruit upon an inverted flower-pot resting rim downwards in a saucer filled with water; or instead of the saucers of water, when the ripening fruit requires dry heat, each pot may be capped with a square of glass a few inches larger than the pedestal. Woodlice enjoy heat, a dry ambush, and solitude. Therefore, by reversing these conditions as much as possible they will be discomfited. Every effort should be made to catch and kill them, as they may attack the stems and foliage after the wholesale nibbling of the fruit has been made impracticable.

A barren Fig tree (H.).—Unless this vigorous healthy Fig was of good size when planted two years ago so far you have but little cause for complaint. Figs, you must understand, are peculiar in their likes and dislikes, and yours seems to have food which it likes, hence most likely its strong infertile condition. Does it get full sun, plenty of heat and air, and is it well drained? If not, lift bodily when the leaves are ready to fall, shorten all the strongest roots, and replant in a well-drained limited area. A poor calcareous loam, not too light, two-thirds, and old lime rubble one-third, thoroughly mixed, will make a suitable compost. Make the border 18 inches deep, resting on a well-drained concreted bottom, and not more than 9 feet super at the outset. Relay the roots near the surface, give one watering to settle the soil about them, flush off, and keep dry until February. Resume watering when the buds commence swelling. Train the main shoots 1 foot apart and shorten

others not wanted, to induce the formation of short spur-like pieces, which will show fruit freely. A greenhouse Fig should have a poor larder, but plenty of water in summer, an abundance of sunlight and air to ripen the wood and give flavour to the fruit, and complete rest through winter.

Plants for wall, &c. (E. VON SCHWIND).—The following will do well for the stonework around the margin of ponds: **Silene maritima plena*, white, double; *Lithospermum prostratum*, blue; **Arabis alpinus fl.-pl.*, white; **Campanula garganica*, blue; **C. g. alba*, white; **C. muralis*, blue; **Saponaria ocyndoides*, rose; *Polygonum Brunoni*, pinkish red; *Arenaria balearica*, white; **Aubrietia Hendersoni*, **A. Leichlini*, **A. graeca*, **Gypsophila prostrata*, white; *Thymus lanuginosus*, *Veronica rupestris*, deep blue; *Phlox Setacea Vivid*, rich rose; *P. s. The Bride*, white; *P. s. atropurpurea*, (*Gnothera macrocarpa*, large yellow; *Omphalodes verna*, intense blue; *Herniaria glabra*, **Campanula pumila*, **C. p. alba*, *Helianthemum* in variety, *Saxifraga Wallacei*, white; *S. rhei superba*, pink; *S. Sternbergi*, white. These marked * will also do for the tower, and you may add *Dianthus cæsius*, *Armeria alpina*, *Sedum spurium*, *Sempervivum*, *Wallflowers* by sowing seeds, *Alyssum saxatile*, *Cerastium tomentosum* (which is suitable for pond), *Achillea umbellata*, &c. All are quite hardy, and you will find quite an interesting variety. The plants are all inexpensive.

Plants for hanging baskets (STAMP).—For hanging baskets in a verandah to be effective during autumn and winter it is of course necessary to employ only quite hardy plants, and the choice of suitable ones is extremely limited. The most effective baskets for winter in such a position are Ivies, one variety in each basket, and in hanging them up alternate the green and variegated-leaved forms. There are so many varieties of Ivy that the better way will be to make a selection from a nursery, avoiding as far as possible the very strong, large-leaved forms. The baskets must be effectually lined with moss or thin turves, and in planting the Ivy in the centre take care that the soil is worked thoroughly around the roots. The longest shoots may be pegged around the outside of the basket, leaving the minor ones to dispose themselves at will. After the Ivies have made a little growth the stiffness incidental to newly-planted subjects will disappear. The soil of your border is, we should say, much too light for Carnations, but it might be made suitable by incorporating with it some heavier material. At all events it is worth trying a few, for sometimes unpromising soils give far better results than one might anticipate. Herbaceous plants that will do well under such conditions are *Alstromerias*, *Asclepias tuberosa*, *Asters* (*Michaelmas Daisy* section), *Chrysanthemum maximum*, *Dictamnus Fraxinella*, *Doronicum*, *Eryngiums* (*Sea Hollies*), *Galega officinalis* and its variety *alba*, *Gaura Lindheimeri*, *Gypsophila paniculata*, *Helianthus*, *Hemerocallis*, *Iris germanica*, *Iberis*, *Linum*, *Lupina*, *Enotheras*, *Potentillas*, *Pyrethrums*, and *Rudbeckias*. Of annuals you have the choice, among others, of *Eschscholtzias*, *Godetias*, *Larkspurs*, *Lupins*, *Marigolds*, and *Tropæolums*. Of these last the different forms of *Nasturtium*, both climbing and dwarf, are very desirable for a hot border, as in such a place they flower far more profusely than in rich soil. For spring flowering the low-growing *Phlox setacea* and the different *Aubrietias* will thrive under such conditions, while numerous bulbous plants are also available, particularly *Hyalocynthus*, *Tulips*, *Daffodils*, *Scilla sibirica*, *Chionodoxas*, *Crocus*, &c. *Gladioli* will also form a bright feature in late summer.

Tea Roses upon Laxa stock (BELBROUGHTON).—For forcing purposes we believe *Rosa laxa* would be an excellent stock for Tea Roses, and superior to the seedling Briar, but for outdoor growth nothing can surpass the seedling Briar. In some localities the seedling Briar is not a success, and in that case the Briar cutting is next best; but we should not recommend *Crimson Rambler* as a stock for Roses, although, of course, this and any other strong-growing multiflora, *Polyantha*, *Sempervivens*, or *Ayrshire Rose* could be used, if necessary, for Tea and Hybrid Tea Roses. We saw some time since in an amateur's garden some splendid plants of *L'Idéal* budded upon *Manetti* stock, but possibly if such plants were transplanted they would fail to grow. So much depends upon locality as regards the fitness or otherwise of certain stocks. We know an eminent raiser of Roses on the Continent who largely employs *R. laxa* as a stock; his chief reason for doing so is that this stock, being so active, if budded in May, and the tops bent down to the ground, will so stimulate the growth of the inserted bud that quite nice little plants are available the same year as budded. If you are able to provide a good depth of soil for your Tea Roses, say 2½ feet to 3 feet deep, then we strongly recommend you to use seedling Briar, or Sweet Briar, as they are deep rooting and will continue to grow well into October, and thus produce the autumn blooms valued so much.

Roses on bank (LONDONER).—We presume that it is your intention to furnish the arches with some of the many delightful Roses suitable for the purpose; at all events, we should advise you to do so. But in the event of a greater variety of plants being preferred, you may, if you wish, clothe them with a selection from the fine varieties of Clematis now so popular, or a Rose and a Clematis may be planted alternately. The following Roses are all good for the purpose, and would give satisfaction: *Almée Vibert*, an old and well-known Noisette, with large clusters of white flowers; *Crimson Rambler*, known to all; *Electra*, a cross between the typical *Rosa multiflora* and *William Allen Richardson*, with pretty little flowers, yellow in the bud state and white when expanded; *Euphroasne*, the Pink Rambler; *Félicité Perpétue*, a pretty creamy white flower; *Flora*, deep pink, handsome leafage; *Gloire de Dijon*, well known to everyone; *Longworth Rambler*, belonging to the Noisette section, with bright carmine flowers; *Mme. Alfred Carrière*, a grand Rose for arches, with large sweet-scented white flowers; *Queen Alexandra*, of the multiflora section, with pink flowers; *Reine Marie Henriette*, bright crimson; *Reine Olga de Wurtemberg*, brilliant red, semi-double, a grand climbing Rose; *Waltham Rambler*, a multiflora Rose with single pink flowers; *Waltham Climber No. 1*, bright crimson; *W. A. Richardson*, deep orange. The

variety *Fellenberg*, though not a China but a Noisette Rose, is just the thing for massing, as it is bright in colour, and flowers profusely, while a succession of blooms is kept up for some time. We think you could not do better than plant this Rose in the situations suggested.

Climbers for fence (LONDONER).—Of climbing or rambling shrubs suitable for clothing a 6 feet Oak fence the different Clematis, though beautiful, hide the wood but little during the winter months. A certain proportion of evergreens is necessary for the purpose, and these may, if preferred, be alternated with deciduous plants. Suitable evergreens are not numerous, yet the following will do well: *Cotoneaster microphylla*, *Berberis stenophylla*, which, though a shrub in habit, is very good for walls of the height named; *Escallonia macrantha*, *E. philippiana*, and *E. rubra*, the best three *Escallonias*. Deciduous plants would embrace: *Cotoneaster horizontalis*, *Forsythia suspensa*, *Hydrangea petiolaris* (*volubilis*), *Jasminum officinale*, *J. nudiflorum*, *J. wallichianum*, *Lonicera japonica*, and *Akebia quinata*. If a few Clematis are desired, you may plant of true species, *C. flammula* (*Virgin's Bower*), *C. montana*, and *C. viticella*; while garden varieties may be selected from *alba magna*, white; *Beauty of Worcester*, violet; *Blue Gem*, pale blue; *Countess of Lovelace*, lilac; *Duchess of Edinburgh*, white; *Jackmanni*, violet-purple; *Jackmanni alba*, nearly white; *Lady Caroline Neville*, French white, deep blue; *lanuginosa candida*, greyish white; *Nelly Moser*, silvery lilac, purple bar; *Star of India*, rich plum, with deeper bar down each petal.

Destroying deep-rooting weeds (H. M.).—Ploughing ground, then well harrowing it to destroy deep-rooting weeds such as Thistles, Nettles, Coltsfoot, &c., would have but a temporary result, as the movement of the plough would break the fleshy roots into many portions, and in a garden every piece would become a new plant. But in a garden ploughing is out of the question, and some good may be done by deeply forking the ground and thus picking out every piece of root possible, and, if trenched two spits deep, the work would be more effectual still for a time. But there would be a recurrence of growth the following year, though less strong, and that should be taken advantage of to keep the hoe in constant use, cutting off hard every evidence of weed growth seen. Were that done one whole season the effect would be to weaken the root growth greatly, and it is most probable that a second year's constant hoeing would kill the weeds entirely. If the roots cannot make leaf growth they must presently die away. But the hoeing must be constant, keeping down every bit of leaf growth that is seen at once. That, however, should at the first be done by weekly hoeings, and later in the season by fortnightly ones. Where arable fields have been allowed to go to ruin through weeds of the nature you name, a heavy responsibility rests on those who rent or own land, and a vast deal of what is seen in both arable fields and pastures is due to the neglect to use the hoe. In a garden such neglect is quite inexcusable. Growing weeds means ruin, but growing good clean crops always means prosperity. That is always our experience. There are few garden or field tools of more value than the hoe when freely and ably used.

Peat for Rhododendrons (A READER).—(1) The ordinary sandy peat known as "Rhododendron peat" is the kind generally used. The superior fibrous peat used for Orchids and other choice pot plants would be too expensive and not necessary. We have grown Rhododendrons in sandy loam with leaf-mould very satisfactorily. Some nurserymen grow their young plants in loam; others in peat. It is better to get plants from a soil similar to that in which it is intended to grow them permanently. In any case the soil must be free from chalk or lime. (2) Rhododendron peat is sold by the ton; about four tons would probably make a truckload. Without carriage the price would be about 20s. per ton. (3) We do not know of any peat in the neighbourhood of Marlow-on-Thames. If none is found there it would be better for the nurseryman who supplies the plants to supply the peat; both could come together, and we think it would be cheaper and more satisfactory.

Arbor-Vitæ hedge (CROMWELL).—You do not say at what time the above was planted, and, as all else appears to favour success, we imagine you planted somewhat late for this particular shrub. The size of the plants and the method of preparing the trench are good. Planting should have been done quite early in October or left over until March or early April. The above and a few others we could name are quite unsuited to late planting on heavy soils, where the root-fibres may long remain inactive. In place of the above we suggest the planting of Yew trees to form the hedge. Plants not exceeding 2½ feet high are generally satisfactory for transplanting. These may be put out in October, or, if this cannot be arranged, defer the planting till March. The Yew is a capital subject for soil such as you describe, the other plant generally preferring a lighter soil. If you care to try the *Arbor-Vitæ* again, you may, in addition to what we have said already, endeavour to place some lighter soil about the roots to afford the plants a start. Leaf-mould and road-grit freely mixed with the staple soil would greatly assist. A similar material may also with advantage be incorporated with the soil of the trench. If you do not plant before March you will ever have to guard against piercing winds, for nothing is more disastrous to freshly planted trees or shrubs. In such a case frequent syringing of the plant is highly desirable, so that the branches may remain fresh and thus more quickly promote root-action. You may improve the condition of the soil for gardening purposes generally by freely adding the ashes from burnt garden refuse, road-grit, fine ashes, or the burnt clay earth which as ballast is usually plentiful in districts where clay abounds. If you can obtain this in plenty you may, by taking the garden piecemeal, greatly improve it and generally prevent the cracking. By first making sure of the drainage and adding the grit and other things in plenty for a season or two, together with light manure in preference to heavy, a decided improvement will follow. In addition, if you employ a small fork for pricking over the surface in place of the hoe, and lightly mulch the surface with manure of the old Mushroom bed type, you will find, by working this

continually into the surface, that the soil contraction will diminish. A rough sketch like the one sent is usually sufficient.

Maund's "Botanic Garden" (ALFRED JAMES). Maund's "Botanic Garden" consists of thirteen volumes, with 312 plates; Maund's "The Botanist" consists of five volumes, with 250 plates; and Maund's "Floral Register" of two volumes, one of which is called the *Acturiarum*.

Books on Orchids (G.).—The best illustrated books dealing with Orchids are Sander's "Reichenbachia," Williams' "Orchid Album," Linden's "Lindenia," "Orchids: Their Culture and Management." The price of the last named is one guinea (Upcott Gill), the others are more expensive. "The Book of Orchids" (Laue) is 2s. 6d. We will make further enquiries about the other one you name. Mr. G. F. Wilson died on Good Friday, 1902, and a notice, together with portrait, appeared in THE GARDEN for April 5.

Climbing Roses under glass (S. J. KNOX).—It is impossible to give these too much air or light at the present time. If the growths have been somewhat neglected lose no time in separating them while still only partially ripe, as not only will they bear shifting much better now, but they will also ripen better when isolated. The whole secret of a good crop of Roses from these extra vigorous and climbing Roses is in getting plenty of well-matured wood each autumn. You will then be rewarded with a grand show of bloom throughout the full length of each growth. In order to assist to this desirable end it is well to cut away all growth that has flowered. The sooner this is done after flowering, the more strength will the young growth that is to form flowering shoots for next season have. Keep your Roses under glass rather dry at present, so as to help mature the growths. Shading that was put on during the summer, and that has not yet been washed off by rains, should be removed.

Tigridia Pavonia (X. Y. Z.).—The above and other species and varieties of the genus are for the most part cultivated in the South of France, the Channel Islands, and other places. Natives of Mexico, South America, Chili, &c., they require protection during winter in this country, and this is generally afforded them by early autumn lifting and storing away in a place secure from frost. If carried to excess it certainly does harm. Generally, however, with good roots a fairly good flowering results in the first year, after which you may modify the drying to a large extent. If you grow the plants in large pots the latter may still retain the roots with the soil quite dry. If you cultivate them in the open ground select a sunny position. The soil should be light and rich, deep and very sandy. When matured after flowering place the roots in dry sand or soil, and avoid exposure to external influences, which is the chief cause of excessive shrivelling.

CORRECTION.—"Iris susiana at Colchester." The illustration of *Iris susiana* that appeared above this title last week was from a photograph taken at Wretham Hall, and not at Colchester.

TRADE NOTES.

WEST'S RAFFIA TAPE.

We have not seen a better material for tying plants and flowers than that submitted to us by Mr. C. E. West, Higham Hill, N.E., under the above name. The tape is a pleasing green colour and very tough; it is corrugated, which makes it keep flat and prevents its twisting, so that it cannot cut or injure the most delicate plant. Mr. West says that however tightly it may be tied it will always expand with the growth of the plant. The corrugated surface also prevents its slipping backward when tying, so it is very easy to use. On account of its colour it is much less noticeable than ordinary raffia, and the appearance of the plants is in no way interfered with. After a short exposure to the weather the green will soon lose its brightness. It is much cheaper than raffia, yet it is much stronger and almost imperishable. We think West's Raffia Tape will prove very serviceable in the garden. There are many other novelties in Mr. West's Catalogue, which will well repay perusal. Among them we may mention "The Hand Fumigator," "Sprayer," "Spray Syringe," "Powder Diffuser," "Earwig Traps," a wire mesh substitute for crocks in pots, Weed Extractor, as well as a great variety of insecticides, manures, &c. Some eighty-five pages are devoted to the description and illustration of garden requisites.

It is announced that *The Studio* will shortly publish a special autumn number devoted to the work of two of France's greatest humorous draughtsmen—Daumier and Gavarni. In these hurrying days these two remarkable geniuses are almost forgotten, yet both of them can, without hesitation, be assigned places amongst the most powerful and the most imaginative draughtsmen the world has ever seen. They were humorists of the first order—sometimes subtle, sometimes grim, and sometimes boisterous, but always humorists in the best sense of the word. Each of them at times took excursions into the realms of tragedy and pathos, in astonishing contrast to his usual habit of brimming humour, but above all things each, by the force and flexibility and the significance of his line, was a draughtsman of the very first rank. *The Studio's* special number will contain, as usual, a large number of coloured plates and photographs, as well as full-page facsimile illustrations in black and white.

CATALOGUES RECEIVED.

Bulbs.—Messrs. Dobie and Mason, 22, Oak Street, Manchester; J. R. King and Sons, Coggeshall, Essex; Dobie and Co., Rotheray, N.B.; George Cooling and Sons, Bath; Oakenhead and Co., Patrick Street, Cork; Chibrons, Altrincham and Manchester; Barr and Sons, King Street, Covent Garden. **Hardy Fruits and Roses.**—Messrs. J. R. Pearson and Sons, Chilwell Nurseries, Loddham, Notts.

THE GARDEN

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[SEPTEMBER 24, 1904.]

THE AUTUMN ROSE SHOW.

THE new Horticultural Hall was crowded with exhibits and flower-lovers on Tuesday last. There were beautiful groups of September flowers, rare hybrid Orchids, superb vegetables from Lord Aldenham's garden, and miscellaneous displays, but the chief attraction was the first Rose exhibition in autumn.

It was a mild reflection of the splendour of the summer shows, and somewhat disappointing, although we were not prepared for a more imposing display. The weather in the South of England has been none too kind of late. A low temperature, drenching rains, and a wintry wind have not tempted the flowers of even the most famous of autumn varieties to expand in a way to delight the heart of an ardent exhibitor. But the exhibition was sufficiently representative to instruct those wishful of bringing the fragrance of summer into the autumn garden.

Many of the exhibits were superb, and two new Roses gained the coveted gold medal. One was named J. B. Clark, a Hybrid Tea, shown by Mr. Hugh Dickson, and reminding one of Crown Prince, the colouring being a warm velvety crimson-purple, the petals pointed, and the whole flower suggesting great possibilities for exhibition. Of quite a different class was the other gold medal Rose, which was shown by Messrs. Alex. Dickson and Sons, Newtownards, Belfast. The name of this is Irish Harmony; the flower is quite single, suggesting Jersey Beauty, soft creamy yellow, deep yellow anthers, and very beautiful in all ways; a vigorous Rose, that must be welcomed for its freedom in autumn, as an addition to the increasing roll of varieties that bloom at this season.

Mr. Hugh Dickson also showed another Rose of much beauty, and named Hugh Dickson; it is a seedling, we believe, from Grüss an Teplitz and Lord Bacon, and has large, broad, strong petals of a crimson colour. It may interest our readers to know that Mildred Grant gained the silver medal for the finest Hybrid Tea, and in the true Tea class, E. V. Hermanos was the most successful. This is a flower of delightful colouring, apricot, rose, and yellow melting into each other, and a Rose to make note of. It is not new, but not much known in gardens.

What are called "garden" Roses were very fresh and beautiful in colour, and the first prize collection, from Messrs. Frank Cant

and Co., Braiswick Nursery, Colchester, consisted of the following sorts, which indicate the Roses that may be trusted to flower freely in September, and, if the weather is warm and not too wet, far into October: Mme. Pernet Ducher, Souvenir de Catherine Guillot, Marquise de Salisbury, Augustine Guinoisseau, Petit Constant, Comtesse Laura Saurma, Mme. Jeanne Dupuy, Papa Gontier, Perle d'Or, Fairy Queen, Mme. Eugene Rene, Corallina, G. Nabonnand, Comtesse de Bardi, Irene Watts, Marie Pavie, Mme. Laurette Messimy, Safrano, Dr. Grill, Mrs. B. R. Cant, Mme. Charles, Leoni Lamesch, Gustave Regis, Rainbow, Mme. Ravary, Cecile Brunner, Mme. Jules Grolez, General Schablikine, Queen Mab, Antoine Rivoire, Killarney, and Fabvier.

The Tea, Hybrid Tea, and China Roses thrust out almost completely the Hybrid Perpetuals, which are the glory of the summer shows, but it is possible that in the future a race of Hybrid Perpetuals as sweet in scent and beautiful in colour may be raised for autumn flowering. The warm colours of this group were missed, but when we think of the tremendous upheaval in the Rose world during the past few years, the many exquisite flowers that have been raised for gladdening the garden in autumn, it is ungracious to utter one word of regret.

The Hybrid Perpetual Rose of the show was Frau Karl Druschki, and the flowers from Newtownards were as perfect as anything we have seen this year, so white and large, without any suggestion of coarseness. As this gives freely of its flowers in autumn, it is not unreasonable to suppose other colourings may be obtained in the future.

We repeat that the show was not brilliant, but as a first attempt sufficiently so to warrant its continuance. It will grow in interest to the exhibitor and general public, as new varieties or hybrids are raised with the special virtue of autumn flowering, and in such a year as the last, when the beauty of the Roses in autumn remain a pleasant memory, the competition would have been much keener, and the flowers generally of greater excellence.

It was, however, an interesting occasion, and the members of the National Rose Society should look back upon the initial exhibition with reasonable pride. Never has the fairest flower that graces the English garden excited greater interest than at the present time, when a garden is not thought worthy of the name without an almost overflowing of the most

beautiful varieties in the various sections. During the coming weeks thousands of Roses will be planted in the home gardens, and a general desire is to acquire not sorts that have a too brief flower life, but that will continue in beauty from summer until late autumn. We want more of the Dorothy Perkins type, and feel happy in the thought that the hybridist is striving to gratify our wishes.

There were several miscellaneous groups of Roses, in which the variety of sorts was as noticeable as the freshness of the flowers; but as these are recorded in our report, further reference to them is needless. The Rose show in autumn should be an annual fixture, and the National Rose Society will be wise in continuing it, if only to encourage raisers of new sorts to make September a month of Roses as fresh and fair as those of sunny midsummer days.

EDGINGS IN THE KITCHEN GARDEN.

OF what use are edgings, and what do we require of them? They ought to help keep in place the soil immediately adjoining the walks, to delineate their outlines, and to form a separating line between the walks and beds. To attain this result, for a long time past the dwarf Box, known as edging Box, has been used. It is a very small evergreen shrub, and, thanks to the cutting, which it stands well, easy to keep in place. After some years it must be renewed, for becoming too high, in spite of severe trimmings, it surpasses the limits assigned to it. This renewing is generally done in the autumn, but is better done in spring when growth begins. Box is replanted by placing it deeper in the soil and less closely together. It has always been urged against Box that it harbours many insects, and more particularly slugs and snails, which devour the young plants cultivated near it. In the hope of preserving kitchen garden plants from their depredations, tiles placed upright in the soil, and buried for two-thirds of their height, are often used to border the paths. Very often in small gardens tiles are used, of which the end intended for placing in the ground is rectangular, while the top forms an undulating or broken line. They are seldom graceful, and the more or less pronounced brick-red tint harmonises badly with the rest of the garden. If Box and the different kinds of tile are eliminated from the material for the composition of borderings, we must seek among the useful plants themselves, which, from their reduced size, their foliage, and their manner of growth, may be used with good prospect of success for the purpose.

THE CHIVE is a plant to be recommended for an edging. It is a small perennial, which does not get out of place during development. If, after the leaves have been cut off close to the ground before winter, it is covered with a little soil it may remain in place for three or four years. If it spreads a

little too much, its lateral development can be limited by a cut made with the spade on either side of the border. It is generally replanted in April by dividing the tufts, from which for preference the outside parts are taken, as being younger and more vigorous. In the spring this pretty little plant is covered with bunches of flowers scarcely higher than the leaves; their great number form for a time a pretty ribbon of violet-red.

CURLED PARSLEYS, especially the dwarf green variety, are very well adapted to the purpose. Sown rather thinly, and frequently renewed by the removal of the old leaves, their foliage remains fresh and green; the crinkled leaves render them very ornamental. As Parsley runs to seed the year following its sowing, it is necessary, in order to have well-furnished edgings of it, to make new sowings every year.

SMALL BURNET is a hardy plant, growing in almost any soil, of small size, with light foliage easily renewed within a short time after having been cut, and thus the plants remain furnished. It is sown either in autumn or in spring, and since it is perennial will last for several years; but as in time some gaps are formed in the border, it is better to renew it every two years.

DE GAILLON STRAWBERRY OR **ALPINE STRAWBERRY** without runners is very suitable for a bordering. Thanks to its tufted and erect habit, as well as to the complete absence of runners, this plant takes up but little room. It may be multiplied by sowing, though with this method of propagation all the specimens are not always of regular growth. This fault may be remedied either by sowing apart, and selecting plants from the seedlings for a year at least before putting them in their permanent situation, or, which is much simpler, by dividing early in the spring the old roots and replanting them in line.

SORREL, though it is not ornamental, is frequently grown as a bordering. It does not run to seed, or at any rate it constantly sends forth shoots, if care be taken only to plant male roots. Borderings can thus be obtained of considerable duration. They are renewed every three or four years by dividing the tufts, which are afterwards replanted, advantage being taken of this replanting to eliminate the female roots, if by chance there were any in the preceding planting.

COMMON THYME is also frequently employed for edgings. It succeeds where many other plants would suffer from the heat, for it likes, and does best, in warm situations. It is propagated by sowing, where it is to flower, in April. If, however, it is requisite to grow it on a sloping surface, where watering is difficult, it would be better to sow it in the nursery, and when the plants are sufficiently developed to bear removal without danger to transplant them in the following June or July. Since Thyme grows quickly, it will be as well to trim it back when growth begins the next year in order that it may not spread beyond the limits assigned to it; clipping the ends of the young shoots while green will, while preventing their elongation, give a denser growth, more suited to the object in view. Although other kitchen garden plants can be used for the purpose, we will here end our choice, for we do not recommend the different varieties of wild Chicory, which in the interior of the beds, as borders for the working paths, can trail their long leaves without harm to the general effect.

V. ENFER, in *La Revue Horticole*.

NOTES OF THE WEEK.

FORTHCOMING EVENTS

- October 4.—Royal Horticultural Society's Fruit Show in New Hall (three days).
 October 5.—National Chrysanthemum Society's Show at Crystal Palace (two days).
 October 12.—Royal Botanic Society's Show.
 October 18.—Royal Horticultural Society, Meeting of Committees, 12 noon.
 October 25.—Croydon Chrysanthemum Society's Show (two days).

Great autumn show of British-grown fruit.—On Tuesday, Wednesday, and Thursday, October 4, 5, and 6, the Royal Horticultural Society's eleventh annual show of British-grown autumn fruits will be held in the new Hall, to which the public will be admitted at one o'clock on the first day and at ten o'clock on the other two days. The show will remain open till 10 p.m. on the first two days, and will close at 6 p.m. on the last day of the exhibition. Copies of the schedule and entry forms may be obtained on application to the secretary of the Royal Horticultural Society, Vincent Square, Westminster.

Dryas octopetala.—An unfortunate mistake, through a mixing up of blocks, occurred in THE GARDEN of last week, page 195. An illustration of *Dryas octopetala* was inserted for one of *Anemone alpina*. Happily the mistake is obvious, as several correspondents have kindly pointed out.

Romneya trichocalyx.—This new species of the genus *Romneya*, which was introduced into England a few years ago, has recently flowered at Kew for the first time. It is allied to *R. Coulteri*, but it is distinguished from it by its woolly calyx (a peculiarity indicated by the specific name) by its more slender, spreading, and leafy stem, and by its leaves, which are from three to five lobed. The plant grows vigorously; the specimens in flower at Kew were 4 feet to 5 feet high. The colour of these flowers is white.

IN MEMORIAM.

SAMUEL REYNOLDS HOLE, DEAN OF ROCHESTER.

LET all the Roses that remain
 After the August wind and rain
 Shed teardrops and be sad awhile.
 For he is dead who loved them so,
 From Damask Rose to Jacqueminot,
 And every Sweet Briar bud ablow
 In the four quarters of the isle.

Bright-blossomed Marie Henriette,
 Are not your leaves and flowers wet,
 Although last night there was no rain
 The grass upon my lawn is dry,
 But drops are on the Verdier nigh;
 And Seven Sisters, near to die,
 Have yet got strength enough to sigh,
 "Good-bye—until we meet again."

The Roses that you loved are bound
 Also to All-Men's-Meeting-Ground,
 The earth's brown bosom, warm and kind.
 Preacher of gentle works and ways,
 Lie down to slumber, full of days
 And honours, while the Roses raise
 Triumphal arches in your praise,
 And breathe your name upon the wind.

NORA CHESSON, in *Country Life*.

A fine Apple.—Connoisseurs in cooking Apples will do well to plant a few bushes of Thomas Rivers. This variety, though it obtained a first-class certificate of the Royal Horticultural Society, seems to have escaped general recognition and does not appear in all catalogues. The tree, in the form of bushes on broad-leaved Paradise, is a magnificent grower with me, robust, short-jointed, with dark leathery foliage, and seems a sure and heavy cropper. The fruit swells to a large size, even when left in bunches of three or four. The form is somewhat egg-shaped, and the colour, in full exposure, of an attractive yellow, more or less streaked and flushed with red. This Apple is remarkable for its weight and density of flesh, but still more for its quite extraordinary flavour, which is that of a rich Apple, with the aroma of a fine Pear thrown in. I know nothing at all like it. We are using it at present (September 19), and it keeps well up to Christmas.—G. H. ENGLEHEART.

Mr. J. F. Hudson, M.A., B.Sc., has been appointed Principal of the Huddersfield Technical College. Mr. Hudson (for some years honorary secretary of the National Dahlia Society) was educated at St. Paul's School, West Kensington, and was Open Scholar Exhibitioner and Prizeman at Jesus College, Oxford. He obtained First-class Honours in the Mathematical Moderations of 1893, and in the finals of 1895, and honours in Physics, 1896, when he took his degree of M.A.

He was Assistant Lecturer in Mathematics at Jesus College and Demonstrator of Physics in the Clarendon Laboratory, Oxford, from 1897 to 1900. Mr. Hudson, who is thirty-two years of age, was recently head of the Department in Mathematics in Hartley University College, Southampton. The salary at Huddersfield is £500, with the prospect of being eventually appointed Director of Education for the borough. Mr. J. F. Hudson is the son of Mr. James Hudson, head gardener to Mr. Leopold de Rothschild, Gunnersbury, and a member of the council of the Royal Horticultural Society.

Mr. J. H. Goodacre.—We are glad to hear that Mr. Goodacre, head gardener to the Earl of Harrington at Elvaston Castle, and widely known as an expert fruit grower, is recovering from his recent severe illness. Mr. Goodacre was taken ill at the Shrewsbury show.

Some hardy flowers worth growing.—The plants mentioned below will interest those who love hardy flowers and are worth growing: *Lysimachia Fortunei*, like *L. clethroides*, but better. *Vitis (Spinovitis) davidiana*.—To the lovers of Vines this is an interesting addition. It is a strong climber, with handsome foliage, the stems prickly. *Polygonum equisetum (australe)*.—For a warm rock garden this is a lovely thing. It is hardy here and stands the winter, does not run unduly, and has long streamers of white flowers. *Polygonum baldschuanicum*.—Many of my friends tell me they cannot grow this, and decry it accordingly. Here it completely envelopes a tall Pear tree so as to hide the natural foliage, and is now in its second blooming this year, a pyramid of pink sprays 18 feet in height. *Rhodochiton volubile*.—I pointed out the beauty of this charming creeper in a previous note, but a letter from one of your best known contributors complained of its dulness of colour. If it is grown on tall Hazel branches, shaded slightly from the midday sun, and so placed that the western sun shines through it it is indescribably lovely; a wall spoils it. *Campanula mirabilis*.—Five years since I obtained seed and raised a large number of seedlings. None flowered till the third year; the bulk in the fourth year. Even yet a few will wait until the fifth year. It is very hardy; very beautiful, and seeds freely, self-sown seedlings coming up in every direction. *Gentiana macrophylla*.—I have a very fine variety of this from Italy. It is exactly like the pale yellow variety in growth, but the flowers are a beautiful blue. The past season should prove a perfect seed year, and we may look forward to success in establishing new varieties.—P. H. MULES, *The Old Parsonage, Gresford*.

Glasgow Parks Department.—Some interesting figures appear in the accounts of the Parks Department of the City of Glasgow for the past year, and a few points may be worth recording in THE GARDEN as showing the condition of matters in a city which has shown such an enterprising spirit in providing open spaces for its citizens. The revenue for the year was £82,812 17s. 1d., while the total expenditure, including sinking funds, amounted to £79,498 0s. 5d. The surplus was thus £3,314 16s. 8d. Every penny per £ of rental produces £19,630, fully £700 more than in the previous year. The estimated revenue for this year is £83,400, while the estimated expenditure is £82,092. The assets of the department are valued at £1,123,063 4s. 11d., and the liabilities (including £148,408 of sinking fund) amount to £918,518 8s. 6d. The position is thus a favourable one, and reflects much credit upon those responsible for the working of the various departments.

Cactus Dahlia Columbia.—Of the fancy striped type of Cactus Dahlias this variety still holds its own very well indeed. At the Alexandra Palace show on the 7th inst., Messrs. J. Cheal and Sons, Crawley, showed a fine lot of blooms in a spray of six, and each bloom was of a high order of merit. A good description of its colour is as follows: Rich bright vermilion ground, the centre and top of each floret being pure white. The form is exquisite, the florets being long and incurving. As a garden plant this variety has much to commend it, being free flowering and consistent, reaching a height of rather less than 4 feet.—D. E. C.

Montbretia George Davison.—Of all the pure yellow forms of *Montbretia George Davison* is quite the best. The growth is vigorous, the blossoms freely produced, and the colour two shades of yellow—orange and a paler tint in the centre.—E. M.

Montbretia Germania.—For brightening the border in September this *Montbretia* is much better than *M. crocosmaeflora*, not only in freedom of flower but in brilliancy of colouring. This is orange-red, with an especially bright eye. No *Montbretia* that I know will give such a mass of colour as this.—E. M.

Anemone japonica Queen Charlotte.—By far the best of pink flowering varieties is this. Not only does it give its flowers in greater abundance, but they are so decided in colour, a delicate soft shade of pink, darker on the outer petals. So stiff and branching are the flower-stems that they require no support whatever.—E. M.

Clematis davidiana.—Among September flowering plants in the open border none is more showy and attractive than this herbaceous *Clematis*. In the colour of the flower there is something about the delicacy of the blue tint that is unrivalled. Under good culture the plant reaches 3 feet in height, and is easily supported. No question has ever arisen in my mind about its hardiness; I find it perfectly so, and recommend it wherever flowers of this colour are required.—E. MOLYNEUX, *Bishop's Waltham*.

A fine Grape room.—A dry, well-ventilated room in which to store cut bunches of Grapes in the winter after vineries have been cleared of their crops is essential in all good gardens. Probably there is no more completely fitted room anywhere than the one recently erected at the Royal Gardens, Frogmore, and which has a capacity to store no less than 1,000 bunches. The room forms a part of a long range of lean-to stores and sheds. The walls are boarded, and to these, back and ends, are fitted, one above the other, five stout rails; each rail, which has a slanting or oblique face, is bored 3 inches deep at intervals to receive the bases of the bottles. There are also eight sets of crossbars projecting from the back. Each set is of five bars, and each bar is bored to take eleven bottles on each of its oblique faces, in all 110 bottles. Late Grapes, especially *Lady Downe's Seedling*, have been largely planted in the new vineries.—A. D.

The Persimmon.—The other day, in Canon Ellacombe's most interesting garden at Bitton, I saw *Diospyros Kaki* against a wall with a fine crop of about forty fruits. Canon Ellacombe informed me that it fruited with him almost every year. It has occasionally fruited in the open elsewhere in the British Isles, and in *THE GARDEN*, page 90, Vol. LIX., I recorded its having fruited near Teignmouth, South Devon, while on page 40, in the same volume, Mr. T. Shaw mentions it as having fruited at Caerleon, Killiney, Ireland. The fruit borne in South Devon, which I tasted and found palatable, was dull red in colour and about 3 inches in diameter.—S. W. F.

Lilium speciosum Melpomene.—This Lily, referred to on page 166, is, as there stated, one of the most handsome of the varieties of *L. speciosum*, and one of the richest coloured. It is imported every year in large numbers from Japan, and finds a ready sale in this country. Formerly the Lily bulbs disposed of at the London auction rooms under the name of *L. speciosum rubrum* consisted principally of the true *rubrum* and *Melpomene* mixed, but within the last few years those of *Melpomene* have been kept distinct by the Japanese themselves and catalogued as such. Still, even now there is a certain amount of mixture among them, and of course a good deal of individual variation. Anyone accustomed to handling in quantity the bulbs of these Lilies can almost unfailingly select those of *Melpomene* from *rubrum*, as in *Melpomene* they are darker in colour and show a great tendency to divide into several crowns, whereas in *rubrum* they are more compactly built. Apart from the rich colour of its blossoms *Melpomene* is distinguished during growth by its dark-coloured stems and leaf stalks, while the leaves are deeper in tint and

rounder than those of any other variety. Large bulbs of this, too, will often push up a number of stems. It is very interesting to note the great difference between the bulbs of the several varieties of *L. speciosum*, thus those of the two varieties in which the flowers are white tinged on the exterior with green, viz., *album novum* and *Kretzeri*, are of a yellowish hue, whereas in *album* (of the Dutch), suffused chocolate outside and white within, they are of a deep mahogany tint.—H. P.

Campanula pulloides.—I send you a small photograph of the very scarce *C. pulloides*, a supposed hybrid between *C. pulla* and *C. turbinata*. It is a most showy, free flowerer at the end of June and during July. The flowers combine the substance of *C. turbinata* with the intense glistening purple-blue of *C. pulla*, which species it resembles in general habit of growth; the height is about 5 inches. The stems and foliage are sparsely covered with long stiff hairs. In a mixture of half fresh loam, a quarter grit or clean river sand, and a quarter leaf-soil the plant grows splendidly. It must have a sheltered but a north or west exposure, as, although the fleshy and almost globular flowers are substantial enough,



THE RARE CAMPANULA PULLOIDES.

(A supposed hybrid between *C. pulla* and *C. turbinata*.)

along with many others of our brightest flowering things, they resent even the shortest periods of bright sunshine.—J. WOOD, *Hardy Plant Club, Kirkstall*.

Argemone grandiflora.—For a long time this handsome Poppy-wort has been producing a succession of its large white flowers. Although it is stated to be a perennial in its native country (Mexico), here it has to be treated as a half-hardy annual, sown in heat in the beginning of March, and planted out when large enough early in the month of May. Like many of the plants of this family it dislikes being transplanted, and great care should be exercised in planting it out, the least twist given to the seedling being fatal. A rapid grower, it makes a bushy plant about 4 feet high, with branching purplish stems covered with a glaucous hue, the pinnatifid leaves are from 6 inches to 9 inches long, with light midrib and veins. They are also prickly underneath, although this species is the least prickly of all the *Argemones*. The large white flowers, like those of a *Romneya*, are fully 4 inches in diameter, and have a bunch of yellow stamens in the centre. With a

number in flower at a time the effect is charming, and considering that it commences to flower at the end of July and keeps on till cut down by frost, it is a useful plant for borders. Unlike most of the other members of this family its seeds are not produced freely, and it may be due to this fact that it has not become common, although introduced into this country in the year 1827. A similar plant with even larger flowers is *A. platyceras* from the open plains and banks of streams in California and Texas. It differs in having a bunch of red stamens in the centre of the white flower and in being much more prickly all over, especially the fruits, which are closely packed with spines. Quite as free flowering as *A. grandiflora* and still in full flower, it promises to ripen plenty of seeds. There is said to be a rose-coloured or purplish form of this to be found in southern Texas, and altogether it is a more variable species than the former. A sunny position in light sandy loam is suitable for both plants.—W. I.

Window-box prizes at Dalkeith.—The improvement effected in many towns by giving prizes for the best window-boxes has been generally recognised, but there are few towns of its size so well situated as Dalkeith is at present through the generosity of Provost Chisholm, who this year again gave the handsome sum of £35 for prizes for window-boxes within the burgh. The competition has created much interest, not only among the competitors, but also among their neighbours and others. Three sections have been formed, and for each of these several first, second, and third prizes are awarded. The judges have announced their decisions, which appear to give general satisfaction. A number of the boxes show both tasteful arrangement and good cultivation.

Rosemary as a wall climber.—Where a dense evergreen growth and something unusual are appreciated as a wall covering Rosemary is worthy of consideration. Planted at the foot of a west wall it quickly grows, flowers abundantly, and needs but little attention in the way of training or pruning. The chief point is to lay in the leading growths as many as are required to cover the desired space, and then spur in the foreright shoots. After that is achieved allow these growths to produce their blossoms at will, and in the early autumn cut back superfluous shoots.—E. M.

Montbretia Chloris.—This variety of *Montbretia* is by no means new, but it is rare enough to warrant a note as to its usefulness at the present season. It closely resembles *George Davison*, a splendid form of recent introduction, but the flowers do not expand so widely, and they can only be described as broad bell-shaped. In colour they are a deep saffron-yellow, almost self-coloured, and the spikes are ten to twelve branched, fully 2 feet high, and they flower very freely, a display being maintained for six weeks. It is an unusually vigorous *Montbretia* of a good clear colour, and a distinct advance on the rank and file of *Montbretias* now so popular. One cannot grow the plant too well, and in the North it may be necessary to lift the bulbs to ripen, but not to dry, so that the stout, green shoots become withered, for these produce the strongest flower-spikes. It has unusually broad leafage and flowering growths.—G. B. M.

Plantago maxima.—It is not often one can appreciate beauty and garden value in a Plantain, yet *P. maxima* certainly has both, and that in appreciable quantity. Its leaves are broadly elliptical and boat-shaped, and form a lax rosette. A series of spikes 2 feet long are produced throughout summer, the flowering portion of which is 6 inches long, somewhat resembling *Cimicifuga* or *Sanguisorba*. The spikes are an inch in thickness, and are mainly composed of bristling white anthers, and arranged bottle-brush fashion. The plant is never likely to become popular, yet everyone who sees the flowers admires them till they know it is a Plantain. To my mind, a clump of half a dozen plants in flower is a pretty sight, and one would not need apologise for its presence in the flower border if its name could be kept in the back-ground. It is an extremely handsome Plantain, however, and many will, doubtless, admire it.—G. B. M.

SOME SUMMER AND AUTUMN - FLOWERING BULBS.

IN the word "bulb" there is a latent magic, though it is one of the ugliest of the many ugly ones in the English language, and when the summer glory of the garden begins to wane, and there comes an autumnal feeling, however slight or transient, into the air, the soul of the true gardener at once responds in obedience to a familiar but overpowering influence, and flies eagerly forward to the future delights of the spring bulbs.

How delightful they are, indeed, and how splendid our display is going to be this next spring! What improvements we have in our mind, what delicate combinations of colour, what nice little nooks and corners there are to be filled with Scillas and Chionodoxas and Daffodils! And then that first bulb catalogue of the autumn; what a thrill of delight we experience on finding it lying on the table among our letters. It may be from an untried, perhaps unknown, firm, but we hastily tear off the cover, study the long list of good things and their prices, wildly mark nearly every one of them, and then—we carefully put it away for future reference, and do the same to the next catalogue we receive. The cry is "Still they come," but in the end we settle down to business and write our order, and even send it off, probably to some familiar firm that we have dealt with before, and await the result.

We know that we have ordered many bulbs that we don't want or can't hope to grow, and have forgotten several most desirable ones; but no matter. The question is, When shall we get them? They ought to be planted soon. Are we not a bit late, after all? Will they do as we particularly asked them, and send the Narcissi at once, or shall we have to take our chance with the rest of the orders, and find ourselves behindhand, as usual? All this is so familiar to myself, such a part of my year's gardening, that I have ceased to struggle against fate, and do the best I can when the long-expected and beautifully-packed parcel of bulbs does eventually arrive.

Still worse is it when we are ordering autumn-flowering Crocuses, Sternbergias, Colchicums, &c. The suspense is fearful, and the "agonised" post-cards to the much-abused firm of nurserymen, urging them to the immediate despatch of the goods, are sent off two or three times a week. Of course, we are aware that such bulbs ought to be safely planted in August, as, indeed, ought all the spring-flowering Narcissi, but we do not always realise how time is slipping away, and how late we are in making out our order for them. Anyhow, we won't forget another time, and, perhaps, with favourable weather we shan't do so badly after all this autumn with Crocus speciosus and the Sternbergias; besides, if you remember, the Daffodils we put in last November flowered splendidly in the spring. And so we go on from year to year—at least, some of us do, myself among the number, and yet we are quite happy and love our bulbs more and more, and contrive to have a charming display in their flowering time. But I think we are all just a bit too much devoted to the spring bulbs only, not paying sufficient attention to those that bloom in the summer and autumn. It is in reference to these, many of them gloriously beautiful, easy to grow, and by no means expensive, that I venture to make the following remarks. I propose to confine myself to the bulbs or bulbous plants of the great natural

order Liliaceæ, and take them alphabetically. The list contains most of those that can be recommended for their beauty and comparatively easy culture. Some of them, it may be said, are not bulbs in the true botanical sense of the word; but we gardeners are not too particular, and may safely include them all under that denomination.

ALLIUM.—Many of the Alliums, in spite of the "soupçon" of garlic in their handsome flower-heads, should certainly be grown more commonly, either in the borders or in the wild garden, for they are remarkably easy of culture and very effective. Those that flower in the summer are *A. acuminatum*, deep rose, and its variety *murrayanum*, rosy purple; the distinct and handsome *ceruleum*; *macnabianum*, of an unusual magenta colour; the old familiar and delightful *Moly*; *narcissiflorum*, a graceful species with fine rosy flowers; the well-known *neapolitanum*; *nigrum*, with green-veined whitish or violet umbels; *ostrowskianum*, rosy purple; *Schuberti*, a comparatively new species, somewhat tender, with very striking rosy or lilac flowers having red stamens and white anthers; and the white-flowered sub-*hirsutum*. Well-drained soil, with a good mulch of leaf-mould or old manure in summer, and plenty of water in dry hot weather, will enable us to grow many beautiful flowers of the Allium in sunny parts of the garden, and we certainly have a pleasing variety of colour at our disposal. Alliums seed freely, and the young seedlings are sometimes rather a nuisance, but they are easily got rid of when small. I remember a certain *mauvais quart d'heure* on my knees, extracting tiny plants of *ostrowskianum* from my pet clump of *Nierembergia rivularis*, and I now keep a better look-out for the insidious little strangers.

BLOOMERIA.—Both species now in cultivation, *B. aurea* (Allium croceum) and *B. Clevelandi*, are very little grown though they are handsome and effective, with bright yellow flowers. They require a warm sunny corner, a good light sandy loam, with a little judicious coddling in winter.

BREVOORTIA.—The extremely pretty *B. Ida Maia* (*Brodiea coccinea*), or "Californian Fire Cracker," is sadly neglected. A clump in a warm border, in rich light soil, with the tall delicate flower-stems artistically staked or otherwise supported, is truly delightful. The corms may be safely left in the ground, if slightly protected with ashes or peaty soil in winter.

Yalding, Kent.

S. G. R.

(To be continued.)

THE ROSE GARDEN.

ROSE SOUVENIR D'HELENE.

ALTHOUGH as a novelty it appears to be wanting in form this Rose must not be forgotten. As the collection of Hybrid Teas is now so large caution is needed by raisers before they swell the already large group with second-rate sorts. The flower is too full, as exhibitors would say, consequently a special season would probably suit it best. In opening the colour is something in the way of *Souvenir du President Carnot*, but as the flowers unfold more of the salmon tint is perceptible. It apparently belongs to the *Caroline Testout* race, and for this one must be thankful, for this means freedom of growth. The weak point about the variety is the folding over of the centre petals, which to some individuals is a detraction in *Caroline Testout*. Were it not for this *Souvenir d'Helene* would be a beautiful Rose, and it is

very fragrant. I have not yet proved the Rose on cut-backs; perhaps it may unfold better from such plants. P.

ROSE MORNING GLOW (TEA-SCENTED).

This is a remarkably good Rose for the garden, and I believe it will be in much request. The colour is so attractive—a rich and glowing rosy crimson, suffused with orange and fawn. In some respects it resembles *Mme. Lambard*, but there is a more constant effect of colour as compared with the varied tints which are seen in flowers on plants of the old favourite named. *Morning Glow* is very vigorous in constitution, equalling in this respect *Mme. Lambard*, *Marie van Houtte*, and other Roses of that type. It cannot fail to please all who cultivate Roses, for there is a subtle charm about its colour which appeals to those who place colour and vigorous growth before form. As a pot Rose *Morning Glow* is a great success. P.

SEASONABLE NOTES.

ROSE PEACE.

As soon as I was aware that this Rose was a sport of *G. Nabonnand* I could see that we had obtained a really good thing. It has all the points of the latter incomparable garden Rose, and only differs from it in colour. This is a pale lemon-yellow, changing to delicate lemon-white. The two sorts mingled, or placed in juxtaposition, would have a nice effect.

ROSE SULPHUREA.

This beautiful bedding Rose is proving one of the best varieties that have been introduced for several years. Its chief charm is the way in which the individual blossoms display themselves, each flower being quite erect and well away from its neighbour, so much so that it is not at all uncommon to see one truss of four and five blossoms having a spread of 15 inches to 18 inches. The colour effect of *Sulphurea* in the distance is white, but on close inspection the pale sulphur-yellow is seen especially in the charmingly-formed buds. It is to be hoped Messrs. William Paul and Sons, the raisers of this Rose, will give us more of this type in other colours. Their new variety *Warrior*, which was exhibited in the early summer at Regent's Park, struck me as being another good thing. Its colour is much deeper than *Papa Gontier*, and the growth even better than that popular sort. It is brilliant bedding Roses we want, then we shall be quite independent of other bedding things. It is freely admitted that the bedding Tea and Hybrid Tea Roses for continued effectiveness through the summer and autumn months are among the best subjects for this purpose. By careful preparation of the beds, ensuring the roots a good depth of soil, growth goes on unchecked, consequently there is nothing but vigour and free blooming from this race.

ROSE RAINBOW (TEA-SCENTED).

All who can appreciate striped Roses should have *Rainbow*. It has all the good attributes of its parent, and only differs in that its flowers are pale pink, heavily flaked with the reddish crimson of *Papa Gontier*. The buds just before they unfold are very pretty, and the variety is certainly worth growing, not only as a novelty but also for its decorative value.

ROSES COMMANDANT FELIX FAURE AND BOB DAVIDSON.

These are two grand high-coloured Roses, which we welcome most cordially. The former is a brilliant vermilion, richly shaded with the blackish maroon of *Prince Camille de Rohan*. The flowers are large, inclined to be globular, but quite expansive enough to unfold well. It is a splendid grower, and must take a prominent place in our gardens. The growth being somewhat spreading, this Rose should make an excellent standard.

Bob Davidson is quite a different Rose, its pointed petals and rather tight flower being distinct characteristics. The colour is of the intense shade seen in *Victor Hugo* and *Duchess of Bedford*; it is apparently a better grower, being more branching

than either. I regard these two brilliant Roses as first-rate additions to our Hybrid Perpetuals, and it would be a commendable work if hybridisers would seek to infuse the free flowering habit of the Hybrid Teas into some of our brilliant and fragrant Hybrid Perpetuals.

ROSE EARL OF PEMBROKE.

This fine crimson Rose is always good in autumn. It is one of the late Henry Bennett's seedlings, and a good one it is. Possessing much of the habit of Marquise de Castellane, from which the variety was raised, the pollen parent, Ferdinand de Lesseps, has apparently imparted the crimson tint and less rigid growth than is present in the seed parent. Coming from two such fine Roses it is quite natural Earl of Pembroke should be very fragrant. This Rose always reminds me of a variety raised by Thomas Laxton and named Charles Darwin. There is a perceptible brownish hue about both. If neither of these Roses is in the collection I would advise my readers to procure them.

ROSE MME. VERMOREL.

This splendid Tea Rose has been very fine lately, in fact it is always good. It is one of those large double Teas that will expand well, no matter what the weather may be. Its only fault is that the blossoms droop because they are so weighty; but I do not think that any detriment, because such a fine bloom will well repay the trouble of tying the growths to a small stick. It reminds me somewhat of Jean Ducher, but there is more of a rosy hue on the outer petals. The predominant colour, however, is coppery yellow. It is a fine vigorous grower, and should succeed well at the foot of a wall, as a bush in the open garden, or as a standard. For forcing, too, it would be an excellent addition to the good winter-blooming Roses.

ROSE ULRICH BRUNNER AND OTHER HYBRID PERPETUALS FOR JANUARY BLOOMING.

Established plants in pots of the above grand winter Rose should now be dried off preparatory to pruning them in October. Although Liberty is certainly the most brilliant of our winter Roses, the bold flowers of Ulrich Brunner have a special value so early in the year. Plants that were potted from the open ground last autumn would be the best for this work. They would not now need repotting, but their crocks should be examined and a top-dressing with some good compost afforded. This Rose should be worked on the Manetti stock for this early forcing; in fact, I think it is best for all Hybrid Perpetuals in pots, although such plants are not so lasting as those on the Briar. If some bone-meal were put into the compost at the time of potting, the plants would require no stimulants until the buds are about the size of Peas. Then a sprinkling of Clay's or other good fertiliser will be beneficial, in addition to liquid manure made by steeping some cow manure and soot in a tank or cask. By a system of resting the plants every other year, then hard pruning, fine long growths can be secured. But if such growths are cut away with the flowers it does not pay to grow the plants a second year, seeing that bush maiden plants are now so cheap. Of course to provide for this discarding of old plants a fresh batch must be potted up each autumn.

ROSE PERLE VON GODESBERG.

I think rosarians have been rather premature in condemning this Rose. It is true the blossoms do not show the golden yellow which we may have expected, but there are signs that this colour is lurking in the variety which careful selecting may bring out. Undoubtedly the introducer distributed the Rose before it was "fixed." In any case the variety appears more vigorous than Kaiserin Augusta Victoria, from which it sported, and even

if we do not obtain a "yellow Kaiserin," as we expected, we have at least a grand variety with a constitution much superior to the Kaiserin. P.

TREES AND SHRUBS.

CATALPA BIGNONIOIDES.

I AM sending you a photograph of Catalpa bignonioides (the Indian Bean Tree). It is perfectly hardy here, and flowers profusely every year, producing seed vessels from 6 inches to 10 inches long. It flowers in August, a season when few trees or shrubs are in blossom. I believe this tree is better known as *C. syriacaefolia*. The photograph was taken on August 16.

The Gardens, Fairlawn, Tonbridge. F. C.

AUTUMN PLANTING.

The season for planting trees and shrubs is now close at hand, and no time should be lost in preparing

will save much labour and expense in the future. Preparation of the ground should have already been done, but if not it should be taken in hand at once. Where borders or shrubberies are to be planted, the ground should be thoroughly trenched, the depth depending on the nature of the subsoil and the amount of drainage. Light ground with a gravelly subsoil can be broken much deeper than where the subsoil is stiff and clayey, as in the former the roots must penetrate deeply to find sufficient moisture in dry weather, but in the latter the water is liable to collect in the lower part of the trenched portion, especially if the surrounding ground is unbroken. Where isolated specimens are to be planted, holes 6 feet in diameter should be dug out and left open until required. It is better to make the holes too large than too small, as the larger the holes the longer the roots will be before they get into unbroken ground, and the faster will be the growth of the trees for the first few years. The shape of the holes is immaterial, the chief thing is to make them large enough. Manure will only be required with such as Hollies, Yews, Box, &c., though a good mulching of all fresh-planted trees and shrubs is beneficial the first year.



CATALPA BIGNONIOIDES AT FAIRLAWN, TONBRIDGE.

for it, as during the next six or eight weeks the conditions of soil and climate are the most favourable for the production of new roots by freshly-moved plants. Before the actual planting takes place, however, there is much to be done in the way of arranging where things are to be planted, preparing the ground, digging holes, &c. There are also stakes to be provided for those trees that may require them, together with string or wire for ties, and pieces of sacking or old hose-pipe to prevent the stakes from rubbing the bark of the trees. Some of these things may seem minor matters, but it is the attention given to details that ensures success in planting as in every other garden operation.

In arranging where the various trees and shrubs to be planted are to go, attention must be paid to the ultimate size they will attain, as it is poor policy to put a large-growing tree like a Lime, Elm, Douglas Fir, or Spruce in a place where a flowering Cherry, *Pyrus floribunda*, or a Holly would be large enough. A little forethought about what to plant, and where to plant it,

Those trees that require it should be staked as soon as planted, using three stakes to each tree. These should be driven well into the ground 4 feet to 6 feet from the base of the tree at equal distances all round, and be brought together at the stem and tied there, using a piece of sacking or some such material to prevent the bark being rubbed. Large bushy evergreens can be made secure by using three lengths of string or wire fastened to pegs driven into the ground instead of staking them. Wire is better than string for this purpose, as it does not alter in length during changes of weather in the same way that the latter does. When trees or shrubs are bought in they should be looked over before being planted, and any broken or bruised roots cut off with a sharp knife, cutting upwards from the lower side of the root, so that a wedge-shaped end is left to protect the cut portion from water soaking in from the surface of the soil. If the roots are dry they should be soaked an hour or two before planting, and protected from wind and sun by mats. In light soils trees and shrubs should be planted slightly deeper than they were before,

but in heavy ground they do better if raised a little, especially if the ground is inclined to be wet. Before planting the bottom of the hole should be made moderately firm, the plant set in, and the roots laid out separately all round, covering them with the best and finest of the soil, which should also be worked into any hollow places at the base of the stem. When the roots are covered fill in the hole and make the soil firm. If the mass of soil and roots is rather hard, the outside should be loosened with a pointed stick.

To sum up, there is much to be done besides the actual planting, and if everything is arranged and provided beforehand it will mean time and labour saved, besides giving the plants every chance of recovering after their removal.

Bayshot, Surrey.

J. CLARK.

THE CLEMATISES.

COCCINEA HYBRIDS.

(Continued from page 154.)

CLEMATIS BERGERONI is a pink-flowered plant, very similar to some forms of *C. intermedia* in habit. It blossoms freely during July and August.

C. calycina cannot be said to be everyone's plant, for it flowers in midwinter, and is rarely seen in good condition. It has evergreen, very finely divided leaves, and dirty, greenish white blossoms 2 inches to 3 inches across. It is found in the Balearic Islands, and should have a place on a warm wall.

C. campaniflora.—This is one of the daintiest of all, and one that should be grown more largely than at present. It attains a height of quite 15 feet, and quickly makes a fine mass. It was introduced from Portugal in 1810, and is distinguished by means of its slender stems, small simple, bi- or tri-parted leaves, and tiny campanulate blossoms barely 1 inch across. The colour may be either white or pale blue or mauve, and it is at its best in July and August.

C. cornata is a strong-growing, large-leaved Himalayan plant. The flowers are small, tubular, and pale yellow. It is not a very ornamental species.

C. crispa differs from most by the shape of its blossoms. It comes from the Eastern United States, grows 5 feet to 6 feet high and bears somewhat fleshy cylindrical flowers, which are from 1 inch to 1½ inches long, the ends of the sepals being reflexed. The blossoming period is late summer, and the colour of the flowers pale lilac.

C. Flammula is a well-known, strong-growing European plant, bearing during late summer large panicles of fragrant white flowers. It is an excellent subject for a semi-wild position.

C. grata forms a strong-growing plant, with large, bright green leaves and big panicles of small white flowers borne in August. It is found in the Himalaya.

C. heracleifolia and its varieties make a distinct group of sub-shrubs. They come from China, and vary in height from 1 foot to 4 feet. The leaves are ternate and large, the flowers small, tubular, and blue, and borne during late summer in axillary and terminal clusters. The best known varieties are *Davidiana*, *Lavallei*, and *Stans*. *C. h. Davidiana* makes a good subject for a bed.

C. montana.—This is a popular spring-flowering species from the Himalaya. It was introduced in 1831, and is a very strong grower, rising to a height of 18 feet or more. It is an excellent plant for walls, pergolas, and similar places, and flowers well in April, the blossoms being pure white and forming long elegant sprays, single blooms being borne from most of

the leaf axils. In the warmer parts of the country it does well in the open.

C. orientalis.—In 1731 this species was introduced from the Orient. It is very distinct, making a graceful climber 7 feet to 9 feet high, with small pinnate leaves. The flowers are pale yellow, and are in evidence from July to September. A variety called *taugutica* has been introduced within the last few years. It is a great improvement on the type, having much larger deep yellow blossoms with long acuminate sepals.

C. paniculata.—It is only in the warmer parts of the country that this Japanese species does really well, for although it makes a lot of rank growth about London it rarely blossoms well. In Cornwall I saw a very fine specimen in full flower last September, the whole plant being smothered with panicles of pure white flowers, each of which was from 1 inch to 1½ inches across. When planted it should be given a warm wall, except in the south-west counties.

C. virginiana is a native of the United States. In many respects it is similar to *C. Vitalba*, and can be used in half-wild places.

C. Vitalba is well known as a hedgerow plant; it is, however, worth growing in the wild garden or back of a shrubbery, where it can have lots of room to ramble.

C. intermedia is of sub-shrubby habit and bears numerous purple flowers in July. There are forms with pink blossoms.

The herbaceous group contains very few that call for special notice. *C. coccinea*, a native of Texas, is very distinct and showy, the flowers being tubular and scarlet. It should be grown at the foot of a south or west wall.

C. recta is found in South Europe, and grows from 2 feet to 4 feet high. The leaves are pinnate and the flowers white, fragrant, small, and borne during June and July in large terminal panicles. It is a good subject for a bed.

Other herbaceous species are *Douglasii*, *Fremonti*, and *integrifolia*.

TENDER SPECIES.

Of these there are a great many, but the majority are not of decorative value.

C. aristata is a pretty, small-leaved white-flowered Australian species, and *C. megeniana* a small-flowered plant from China with fragrant white blossoms.

C. indivisa is well known as one of the most useful of evergreen cool house climbers, and is particularly showy in late spring when smothered with its lovely white, star-shaped flowers. It is from New Zealand.

C. Stanleyi is a curious South African plant with herbaceous stems and curious woolly flowers 2 inches to 3 inches across and cream coloured.

In addition there are numerous others, but they are of botanical rather than commercial value.

W. DALLIMORE.

UTILISATION OF PEAT IN GERMANY.

NO opportunity is lost by the Germans of proclaiming their superiority to other nations as regards the application of science to the needs of industry, and there is only too much reason for conceding the justice of their claims. Particularly interesting to Irishmen is an exhibition which is now being held in Berlin, and which is entirely devoted to showing how German scientists have successfully grappled with the problem of making the marshes and bogs of Prussia add their quota to the yield that agriculture and industry extract annually from the soil of the

Fatherland. The exhibition has been promoted with the object of showing the result of the labours of a society formed in 1880 for the purpose of exploiting the waste lands of Prussia, and it is due exclusively to the services of the scientists called in to assist the society that the exhibition can boast of such wonderful success.

The exhibition is divided into two parts, one dealing with agriculture, the other with industry. In the first specimens are shown of the Beetroot, Cabbage, Potatoes, Wheat, Oats, Clover, Lucern, and other plants that have been raised on the bogs now under cultivation, whilst a series of drawings, paintings, photographs, and models shows the means employed to reclaim the land, and the systems of drainage in use. Statements of the manures found best suited to the reclaimed land are also exhibited.

In the second section are shown the industrial products manufactured from the peat. Briquettes for burning purposes, of course, figure in the first line. Then comes peat litter, which is stated to have the greatest absorbent power of any litter known and to make an excellent manure when decaying. Next comes a fabric, known in Germany as "torfmull," used in making the hygienic mattresses to be found in every hospital in the Empire, and also useful for protecting trees and shrubs from frost. This "torfmull" is further recommended as a lining for the walls of dwelling-houses, which it serves to keep both warm and dry. Paper made from peat is another exhibit, and peat paving blocks form a class to themselves. Specimens of artificial cork made from this material are on view, and the exhibitors state that it can be worked similarly to wood, can be cut or planed, will hold nails like a wall, can be painted, has the advantage of not conducting either sound or heat, and of being incapable of becoming impregnated with moisture. This cork can be rendered fire-proof by chemical treatment, and is so light that the cost of transport is reduced to a minimum. German architects predict a great future for this product, and the society hope soon to be able to build up a large export trade in it.

Germany's first aim seems to have been to endeavour to reclaim the land to agriculture, and then, in case of failure in particular districts, to utilise the peat for industrial purposes. It is hardly likely that the first portion of her programme will as yet be carried out in Ireland on a large scale, but it is to be hoped that with the quantities of similar raw material lying throughout the country some means will be found to enable Irish peat products to enter the world's markets in competition with a few at least of the articles now on show in Berlin. T. N., in *Irish Times*.

ROSES — PAST, PRESENT, AND FUTURE.

BY THE LATE DEAN HOLE.

(Continued from page 189.)

WITH the exception of those mentioned, the Tea Roses were regarded as too tender for our English climate, and as requiring the protection of glass; but gradually we discovered (and it was my privilege to be a pioneer) that, budded low on the Briar, whether from cutting or from seed, and mulched in the winter months, they were quite safe in the open ground, and, where they had congenial soil and surroundings, acquisitions to our gardens not to be surpassed for their loveliness or their liberality. No Roses are more admired at our exhibitions, no Rose is more likely to take the prize as "the best single specimen" in the show than a perfect bloom of *Comtesse de Nadaillac*, and at home they delight us always with their diversity and profusion. Of course you may secure in the Rose house a much earlier bloom, and your flowers will not be deformed by sullen rains,

nor by that chartered libertine, the wind, which visits their cheeks too roughly; but when summer comes their beauty will be far more abundant in the garden. And when the Hybrid Perpetuals have made their first (and in many many instances, despite the proud appellation, their only) efflorescence, they will make that garden gay. Visitors have said to me, "How late your Roses are; ours are nearly over," and my reply has been, in the words of the advertiser, "Buy our carefully-selected Teas."

Then I give them the names of the best, but before I repeat this process for my readers, I must introduce them to another most charming group, allied by marriage with the two families which we have had in discussion, and possessing in combination their vigour and refinement. They are designated as Hybrid Teas, and they include flowers of such an excellent quality as to evoke the exclamation which I once heard from a young enthusiast, "I'll have that Rose, though I pawn my hat." There is, for example, no Rose which can claim precedence from La France; and Caroline Testout, Captain Christy, Bardou Job, Gloire Lyonnaise, Grace Darling, Gustave Regis, Kaiserin Augusta Victoria, Lady Mary Fitzwilliam, La Belle Siebrecht, Papa Gontier, and Viscountess Folkestone should be in every collection.

The Tea-scented Roses and their hybrids are undoubtedly at this time the most interesting varieties in cultivation, both for forcing under glass (Niphets and La France are grown by the acre) and in the open ground. In addition to the hybrids which I have named, I commend to the amateur forming a rosarium the climbing varieties, to be planted in beds sheltered from rough weather, but in full enjoyment of sunshine, the following selection being in my belief the most reliable of their class. First and foremost Marie van Houtte, then in alphabetical order, Anna Ollivier, Catherine Mermet, Homer, Hon. Edith Gifford, Mesdames Chedane Guinoisseau, Falcot, Hoste, Lambard, Maman Cochet, Perle des Jardins, Princess de Sagan, Souvenir d'un Ami—only a sample, but sufficient to secure the allegiance of the owner and his anxious yearnings for a further association with the Teas. Farmyard manure must protect the plant and enrich the soil early in December, and the pruning knife must be applied early in April.

What shall I say of the Roses of the future? We may predict with a sure confidence that from his fond love and patient industry the rosarian will continue to add new treasures to his store. It is not only that the cult of the Rose has so largely increased, and that the places of worship are multiplied throughout the land, but the spirit of the worshipper is so much more real and comprehensive. It is no longer restricted to Roses of great size and symmetrical form, to one conventional type (though it may be of all the best), but he has a fresh enjoyment in the diversity of colour and shape which he finds in his Roses, be they double or single, little or big.

Moreover, the success of our hybridisers at home, dispelling the common idea that we had not sunshine sufficient to ripen our seed, can hardly fail to promote a keener ambition and a more splendid success in the production of novelties. Messrs. Bennett, Paul, and Dickson have shown us what can be done, and the possibility of introducing such a Rose as Mrs. John Laing should encourage a zeal in others which no failures can destroy. And it would be helpful, I think, if prizes of considerable amount were offered at our great exhibitions of Roses for seedlings of real merit which were proved to have been raised at home by English, Scotch, Irish, or Welsh rosarians.

There will be great improvements. We rejoice in the anticipation without envy; the Roses of the future, though they should be large as punch-bowls, cannot be more enjoyed than our own.

May the royal Rose enlarge her dominions and increase the happiness of her subjects until the most stubborn of all the Boers acknowledge her suzerainty. Let John Bull place Her Majesty in his coat; Jonathan, his American Beauty; the Scotsman, his Ayrshire Rose; the Irishman, Marchioness of Londonderry; the Welshman, Princess of Wales; the German, Kaiserin Augusta Victoria; the Austrian, Austrian Copper; the Italian, Pius IX.; the Russian, Empress Alexandra; the Chinaman, his Fortune's Yellow; the Indian, his Indica odorata; and let them proclaim throughout the civilised world that the Queen of all Gardens is the Queen of all Hearts!

CHRYSANTHEMUMS.

WHITE EARLY-FLOWERING VARIETIES.

THE number of white Japanese Chrysanthemums belonging to the early-flowering section is not large, and as they have a value that others do not possess their brief enumeration may be helpful to some. Mme. C. Desgrange, an old favourite for market culture, is being fast superseded. Only when grown well and rigidly disbudded can the flowers of this variety be appreciated; it is very weedy when not disbudded. Lady Fitzwygram, sent out by Mr. Agate of Havant some eight or ten years ago, is another plant that is seen in poor condition when grown freely. It will carry a dozen to twenty useful flowers, and as the habit is dwarf and sturdy it makes a pretty specimen. Bouquet Incomparable is a small dwarf sort that has little to commend it this season. The blooms are not very striking, and the habit is not good. In other seasons the plants have generally been better. Charlie is a new sort, with a rather spare habit of growth. The flowers are pretty, however, and may be described as white with cream centre; height about 2½ feet. Doris Peto is a very beautiful flower of the purest white, and in some respects is not unlike Mycsett White and Market White. It is a plant that deserves to be extensively cultivated, both on account of its pleasing habit and its refined Japanese blossoms. The plant comes into flower in August and continues into October.

Grace Attick is a variety that many of the earlier growers have almost forgotten. It has quaint and curious spidery flowers of pure white, and they possess but little quality. The plant, however, is dwarf and compact. In Mrs. Squires we have a first-rate plant, not over large, perhaps, but with flowers rather larger than most others, and of true Japanese form. The flowers are pure white, and are borne on a useful length of foot-stalk; height 2 feet. Mycsett White is a very beautiful pure white. The flowers are borne freely on a fairly good habit of growth, but the constitution of the plant is far from being robust. However, the flowers are so beautiful that any extra care given to the plants is amply repaid. When Owen's Perpetual was first introduced it was hoped that we had acquired a plant of promise, but it has proved disappointing. It is not very free flowering, and has a poor habit. The flowers are white, very slightly tinted pink; height about 2 feet. Queen of the Earlies is a fine large flower, much grown for market. The earlier blooms are always hidden away among the foliage, like so many of the newer Cactus Dahlias, and on this account lose much of their decorative value. The plant attains a height of almost 4 feet. Ralph Curtis, the creamy-white sport from Mme. Marie Masse, bears profusely on plants with a splendid branching habit of growth. On some soils the flowers are freely suffused a

salmon-cerise at the base of the florets. In time there is good reason to believe we shall get a pure white sport in this section of the early-flowering Chrysanthemums. Satisfaction is a plant of which little is known. This is a variety which has a distaste for wet and disagreeable weather, but in warm and dry autumnal seasons the pretty ivory white flowers are very dainty. The plant has a spare habit and a poor constitution; height 2½ feet.

Silversmith is only a passable sort, having a free display of white flowers of fair quality; height 2½ feet. Quite an unique style of growth is that seen in plants of White Grunerwalde. The habit is very spare, but the blooms are developed on single stems on a good length of flower-stalk. White Quintus is really a semi-early or mid-October flowering kind. It is a specially good sort for all forms of decoration, and individual flowers are of perfect form and of the purest white. This variety is a sport from the pink-flowered O. J. Quintus. Market White should be in capital condition by the end of September, and as it has a better constitution, or rather better than most of the late Mr. Russell's productions, a special note should be made of this variety. Cranford White is a kind of reflexed Japanese, with stiffish florets. The blooms are of good size, full, and of a white shaded blush colour. Capital bushy habit; height about 2 feet. In flower during September and later. Parisiana is one of the largest pure white flowers in the early flowering section, and of Japanese form. The habit in this case is somewhat spare, and in consequence the display is limited. Each flower is borne on a long erect footstalk. In cases where the plants have been pinched a bushy style of growth has subsequently developed. Another large flower is Mycsett Gem. Milk-white aptly describes the degree of whiteness. This needs to be disbudded to be appreciated. There are a few newer white sorts, of which something may be said in subsequent notes.

Highgate, N.

D. B. CRANE.

NOTES ON HARDY PLANTS.

PINKS IN THE ROCK GARDEN.

PINKS, with their broad carpets of handsome glaucous foliage studded in spring and early summer with numerous flowers, may with justice be termed one of the chief ornaments of the rock garden; one that lacked a few representatives of this genus would be strangely incomplete. Consisting as it does of a large number of different kinds, the genus contains various species which may be used for many positions in the rock garden. Some are at home on sunny ledges, where their foliage forms a curtain over the face of the rocks, others may be planted while very small in rocky fissures or in the cracks of old walls, where they quickly take hold, sending their roots down in search of moisture and soon forming beautiful evergreen tufts. There are one or two which do not flourish under these conditions, but require more shady places in which to develop their full beauty, and some from higher altitudes need specially selected positions for their successful cultivation. Amongst the more robust spreading species *Dianthus plumarius*, with its numerous and varied forms, easily takes first place, growing almost anywhere, self-sown seedlings springing up in various places around the old plants. This may with advantage be used for covering the rougher parts and banks of the rock garden as well as old walls.

A plant with a much neater habit is our native Pink, *D. cæsius*, which will succeed in similar positions. Of this species there are several forms, some with stems 2 inches or 3 inches high, and bearing large single flowers,

while others have branching stems and reach a height of 6 inches or more. *D. petraeus* is another species that forms large tufts of foliage with numerous small white flowers, while an old favourite is *D. arenarius* with its deeply-fringed blossoms. A shade-loving plant is *D. sylvestris*, which forms tufts of grass-like foliage and freely produced pretty pink flowers on stalks about 6 inches or 9 inches high. Almost the same habit as the last, but with longer grassy foliage and larger flowers, with a dark-bearded zone, is the beautiful *D. monspessulans*. All these are easy to manage, and form a selection suitable for the ordinary rock garden. For those who have a taste for choicer and rarer plants that require a little more attention, there is the alpine Pink (*D. alpinus*), which may be grown in a sunny position planted in gritty loam. Others well worth growing are *D. neglectus* and *D. glacialis*, the latter of which benefits by the addition of granite chippings to the soil in which it is planted. Another, and one of the most beautiful, is the zoned Pink (*D. callizonus*), which requires a slightly shady spot. All are readily raised from seed sown in spring in slight heat. When large enough they should be pricked off into small pots, from which they may be transferred to their permanent quarters.

W. IRVING.

IRIS RETICULATA.

UNDOUBTEDLY this is one of the most beautiful of early-flowering spring plants. I know of no bulb that repays so well for good cultivation. To those who have not tried it I would say obtain good bulbs from some reliable source; during the early autumn they can be bought for 5s. to 8s. per dozen. I consider the best time to plant them is during September and October, or they may be potted four in a 5-inch pot, planting permanently when well rooted. The best soil for them is a light sandy one; if heavy it is easy to remove a portion, adding peat, leaf-soil, or light potting soil with sand. This should be 12 inches deep, planting the bulbs at a depth of 4 inches. This is the way we grow it in a sunny border with other hardy plants, and it is no uncommon thing to be able to count fifty to a hundred blooms on one of the clumps; with us it increases rapidly. Last year the first blooms opened the end of February, and this year the first day in March. It thrives amazingly at Didlington Hall, Norfolk, where the soil is light and sandy, and equally well in North Hants in a similar soil. In our garden the clumps are divided every three years, otherwise they become too crowded.

It is charming in large patches on rockeries in association with other spring-blooming plants. Nothing is more lovely for cold houses or frames

than this, and it grows well in pots. To cut from it is charming, being light and very sweet-scented.

JOHN CROOK.

EVERLASTING PEAS IN THE WILD GARDEN.

THERE are few plants that illustrate better the idea of what we call the wild garden than these Everlasting Peas and their varieties. It is seldom one is seen in the ordinary type of garden at all; they do not come into any popular phase of gardening; the mixed border they are not particularly suited for, even in the few cases where it has not been done away with, while, of course, they are out of the question in the parterre. Thus we deprive ourselves of one of the boldest and handsomest races of hardy plants ever introduced. Now there is scarcely a place which does not offer pretty spots where these plants might be grown without any interference with the "trim garden" proper, and look all the better for separation from it. We have seen the forms of the common Everlasting Pea beautiful in hedgerows, or running over shrubs in a copse, or planted in a rough grassy

in the garden proper, and these would be equally useful and beautiful in the position we mention. In fact, there is no Everlasting Pea or long and vigorous straggling Vetch which could not be thus grown in the hedgerow, or copse, or on a fence, and for effect in mass some of the smaller-flowered Everlasting Peas would be quite as good as the larger ones. But the white-flowered forms of the common Everlasting Pea (*L. latifolius*) and its fine crimson and striped kinds are so valuable for cutting, and bear such handsome flowers, that they would be preferred, as will *L. grandiflorus*. The common forms of the Everlasting Pea are usually raised from seed, but the striped crimson and other new and choice forms will have to be increased by division. We believe the valuable white Everlasting Pea comes pretty true from seed; most of the kinds form very strong tufts when established, and good pieces of the root are not difficult to get for the purpose in the various places above named.

FUNKIAS FOR HOUSE DECORATION.

THEY who have to provide a continual supply of plants for house decoration know how difficult it is to do so with a limited number of glass houses. This is especially so when the places to be embellished are draughty or dark. In such positions plants grown in warm, moist houses are practically useless. For years I have found many hardy plants of the utmost value for this work, and especially Funkias. I am convinced if it were better known how suitable they are for decorative work they would be more widely grown.

We grow a good number of plants and of several sorts. In this way we have them throughout a long period. We find them useful in pots of all sizes, from 5 inches to 14 inches diameter. The small ones are most useful for placing in vases to grow in positions where big ones

could not be placed. Large plants from 1 foot to 2 feet across—their handsome foliage quite hiding the pot—are most attractive when placed singly on tables or in any position just under the eye. We often have plants that would compare favourably with many foliage plants grown in a stove. Another position we find them of great value for is in a large fireplace, from 6 feet to 8 feet long, and wide and high in proportion; we use them as a groundwork, with a few light flowering or foliage plants such as Lilies, Gladioli, &c.

Their enduring nature is a strong recommendation. When grown cold and exposed they will remain at their best for many weeks, that is when the leafage is ripened. When they are making growth they become weakened and drawn if not changed frequently. Our custom is to place several plants early in the spring in a warm house; when growth has advanced they are removed to a cold, airy structure to harden. These are followed by another lot in a cold pit. A third batch is allowed to make growth in the open,



PINKS IN THE ROCK GARDEN.

place away from shrubs or trees. We once observed it in a neglected shrubbery. It was a wide belt which surrounded the garden, too wide to dig and mutilate except on its margin only, which was trimmed and otherwise treated in the usual fashion. But some stiff beds of hardy plants were growing near (it was a botanical garden), and from these, when digging in autumn, the trimmings of a plant of the large-flowered Everlasting Pea had been removed and thrown into the shrubbery beyond the dug part; here they rooted, scrambled up the trees and shrubs, and formed for themselves one of the prettiest little colonies imaginable, growing there year after year unmolested, because the digging, for economical reasons only, had not happily gone more than 10 feet or 12 feet from the edge. The two main types of the more showy Everlasting Peas are thus shown to be well suited for this treatment; they are plants which everybody would admire for their hardiness, beauty, and use in a cut estate, but there are some other Everlasting Peas which are still less likely to get a place

being placed behind a north wall; these are useful late in the autumn. Being strong growing they need help or they soon suffer. We allow them to remain two or three years in the same pots, feeding them well. When repotting is necessary the large ones are cut into several pieces and put into small pots, others are moved into larger pots. The soil must be a good strong loam with some decayed manure, potting them very firm. This should be done when the plants are dormant. While in this condition we plunge the pots in ashes in the open and allow them to remain till growth begins or they are required for use. All large plants not wanted we plant in the open in various positions, and a group of these is most striking. When at Kew in the autumn of 1903 I saw some fine groups of *Fortunei* and its varieties, *ovata* and the two variegated forms, *lanceolata* and *sieboldiana*, *undulata*, and several others. We grow all these in pots and in the open ground, as well as *grandiflora*, known also as *subcordata alba*. This is far more tender than the others and much later. It is most valuable when in bloom in late summer with its fine white flowers. JOHN CROOK.

DRACÆNA AUSTRALIS OUT OF DOORS.

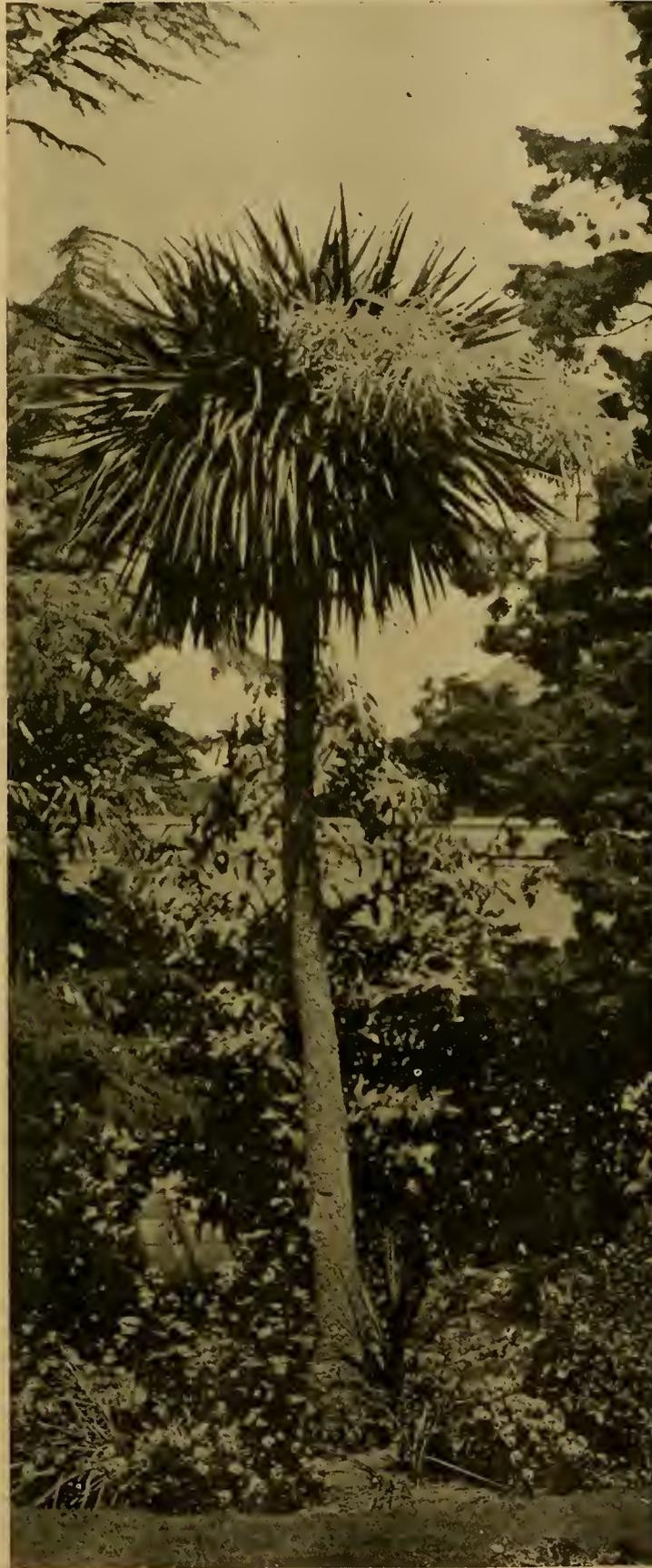
ENCLOSED you will find a photograph taken of *Dracæna australis*, which flowered in our garden this summer and was in full beauty early in July. We had the plant twenty to thirty years ago in our hottest house, where it grew too large, and was planted out in the open garden some twelve to fifteen years ago. It is now 16 feet high, and for many winters has had no protection. A few years ago it had one flower. In its earlier years the plant had but one head; now it has seven heads on the one stem. The flower is soft creamy white, and looks as if innumerable tiny bottle brushes were made up into a lovely large plume. There were, as you will see by the photograph, two good flowers this time. We suppose any severe winter it might be killed down to the ground.

WILHELMINA PECKOVER.
Sibald's Holme, Wisbech.

FLOWER GARDEN.

COLOUR IN THE MIXED BORDER.—I.

NOW that autumn is rapidly approaching it behoves all good gardeners to study well the state of their herbaceous borders. The time is coming when the usual revising and correcting must be done, large plants divided, unruly ones checked, and the failures of the past season taken to heart, and preparations made to ensure a greater perfection in the year



DRACÆNA AUSTRALIS IN A CAMBRIDGESHIRE GARDEN.

From a photograph kindly sent by a correspondent at Wisbech.

(This plant is 16 feet high, and has been in its present position in the open for twelve years. For many winters it has had no protection.)

to come. The cultivation of hardy flowers in our gardens and borders has long been a delight to the amateur gardener, and every year the taste for this form of floriculture seems to increase. No garden, whether large or small, is now complete without its border stocked with perennial and biennial plants, supplemented by the yearly addition of hardy and half-hardy annuals, and every gardener has his own views on the selection and arrangement of the various plants, so that they shall form what is in his opinion a continual and beautiful sequence of colour and sweetness from March until the frosts destroy the last lingering blossoms in November.

To succeed in this delightful and absorbing labour of love is another matter, for we all know it is full of difficulties, and perfection is very rarely attained, particularly when the borders are on a large scale. I am convinced there is nothing in the whole art of gardening that demands so much time, so much patience, and so much botanical knowledge as the making, arranging, and the maintaining in perfect order of the mixed border. To begin with there is the

MAKING, which must be so thoroughly done that the soil need not be disturbed for years. Then there is the judicious selection of such plants as shall thrive in certain conditions of soil and position. You must remember that, save for yearly sub-division, these plants will probably remain there in perpetuity, and it is well that they should, for in many cases the old-established clumps of hardy perennials are the most satisfactory. The simplicity of the borders of old-fashioned garden flowers beloved by our grandmothers is a thing of the past; we now have a hundred different plants where they had one, and these are gathered from all parts of Europe and Asia—from high and low altitudes, wet and dry places, even from the alpine snows—and we crowd these beautiful foreigners among our hardy old friends without the slightest regard for their requirements. What wonder if the so-called herbaceous border is too often a heterogeneous mass of floral failures! But there seems no tendency to return to the simplicity of old gardening ways and to be content with white Lilies, Hollyhocks, the Sweet Williams, and the Stocks of bygone days; rather is there a determination to make border gardening as complicated as possible. I allude to the phase that is rapidly gaining favour among many enthusiasts, whereby we are too surely increasing its pains and difficulties—this phase is the planting; of

flowers in sections of one colour, so that throughout the spring, summer, and autumn the colours will be kept quite distinct and massed, so as to avoid the spotty effects much depreciated by the artist-gardener. The commencement of this mode of floriculture can be traced to the very meritorious idea—started, I believe, in Hyde Park—of planting groups of the same plant instead of single specimens, and, for reasons I shall state hereafter, I think the first idea was far more practical and artistic than the last. Frank Miles, who was gardener as well as artist, did not ask for or require any formality in the planning of his borders; like all true artists he went straight to Nature for his ideas, and, seeing a field of wild flowers in early summer, he noted how all tints were blended and rendered harmonious by the tender green of the mingling herbage, and he adopted the same arrangements, using foliage plants plentifully. He brought together flowers from other lands, but he studied their needs with loving care, and speedily created a veritable paradise of sweetness and harmonious beauty. To him we owe the common use of Lilies, once supposed to be too delicate to stand our rigorous climate, and I well remember the surprise of the gardening world when Mr. Miles showed it—the *Lilium longiflorum*—growing in masses among the cottage flowers in his father's garden at Bingham. The *Lilium candidum* and the Tiger Lily were then the only Lilies commonly seen, and now there are a great number of exquisite sorts all capable of use in one herbaceous border.

In a garden I wot of, beneath a great arch of Crimson Rambler, unbound and untrammelled and flowering profusely, were tall, noble spikes of *Lilium candidum*, and close at hand in charming contrast, and making up the harmony of red, white, and blue, towered fine masses of *Delphinium azureum*. The fairest of all Lilies were splendid this year, and in this case, being plentifully watered and in partial shade, had retained their foliage. I do not think Frank Miles could have known of the lovely *Lilium rubellum*, which I saw for the first time last June flowering in woody places at Wisley, the Royal Horticultural Society's beautiful new possession in Surrey, tinting the mossy turf like a sunset cloud.

The herbaceous borders where grow the Lilies and Crimson Ramblers I mentioned are very extensive, being 130 yards long on each side of a turf-edged gravel path. They are backed by Laurel hedges, charming theoretically, but making severe demands on the soil, which has to be constantly supplied with plant food. The hedges' tender green is broken here and there by Lilacs, Laburnums, *Kerria japonica*, and Berberis. Behind the hedge on each side are Apple orchards, and blossom-wreathed boughs in the spring time almost overhang the borders, adding their own beauty to the galaxy of spring flowers beneath. In March the golden host of Daffodils pierce with their swords the moistened earth, and herald in the long procession of flowers. The pretty *Chionodoxa*, the Primroses, double and single, of every shade, and the laced *Polyanthuses* flower unchecked, increasing with the *Narcissi* year by year. In front, close to the broad margins of velvet turf, the border is carpeted with purple *Aubrietia*, Rock Cress, blue and yellow *Violas*, and *Alyssum*. Tall cottage Tulips and *Hyacinths* follow closely, and Wallflowers, and blue *Forget-me-nots* complete the charming crowd. Of course one of the difficulties of a mixed border is the dying down of the Daffodil spears, and the decay of other bulb foliage, and a dull week or two is inevitable after the sunlight of a thousand Daffodils passes from the borders.

The Spanish Irises that come to our aid so beautifully tarry awhile, and by the time their dainty purple and yellow and sapphire blooms are fully out all the series of early summer flowers have answered their roll-call. The Lupins, light blue and dark blue, purple and white, and yellow show their spikes bravely, and the real old-fashioned *Columbines*, double white and blue and vari-coloured, shake their little petticoats in the soft May breeze. The great daring scarlet and crimson Poppies dazzle our eyes, and we turn with relief to the cool blue of the *Delphiniums* and the charming *Erigeron speciosum*. There, too, are the pearly *Achilleas* and white Mallows, and the white and lilac *Galegas*, sweet and homely, but apt to encroach too much unless controlled, and a hundred other old and tried friends of the border.

This is the supreme moment for the herbaceous garden, and as we gaze down a long vista of beauty we feel we have been repaid for months of toil. Life has no greater joy to offer. Every day for six happy weeks fresh beauties smile on us, and some forgotten treasure or some new plant discovers itself to us, peeping from behind a *Pæony*, or playing hide and seek from a mass of pink *Pyrethrum*. We refuse to be disconcerted if the blanks left by the Daffodils and *Narcissus* declare themselves, for in our reserve garden there are plenty of plants which can be put in at a moment's notice, and we have sown annuals which will fill up the vacant spaces rapidly. Some gardeners pull up Tulips and store the bulbs for another season. I never do this, and both my lovely Cottage Maids, and my later-blooming Parrot Tulips reward my reticence by flowering better every year. I am sure the reason of their superior beauty in the cottager's garden is that they are never interfered with.

The cottager has no time for the intermeddling which is the ruin of so many lovely things. *Violas* and *Forget-me-nots*, too, will cover prettily the unsightly stalks. Frank Miles used *Oxalis* for carpeting between his hardy flowers, and on sunny borders close-growing plants are of great use in keeping down weeds and providing moisture round the roots of any thirsty occupant; and then, too, you get the green, which is of so much value.

The little *Veronica prostrata* is a charming plant for carpeting; its profuse flowers in early summer are of a beautiful blue, a colour always so much wanted, and its foliage is very neat and compact, and though it increases rapidly it is never a tramp—I mean by that it does not turn up all over the border, and even find its way on to the gravel path, as do some troublesome botanical things. Then, as we drift too rapidly into autumn days and autumn ways, again a dull time is inevitable in our gardens, but if we cut off all the seed-pods from our annuals and perennials we shall prolong the hours of radiance and beauty that are so fast running out.

The Canterbury Bells, well cared for and given frequent doses of liquid manure, will blossom again better than ever, and are even more appreciated than when we had a greater wealth of bloom. The *Delphiniums* and *Pyrethrums*, cut down rigorously and given plant food liberally, will bestow on us again their delicate azure and purple spikes and their various Daisy-like blossoms, and in addition we have the *Phloxes*, carefully chosen from a long list of new beauties, the early and late perennial *Sunflowers*, and the summer *Chrysanthemum*, the crimson *Lobelia Queen Victoria*, too little known, and the charming *Salvia patens*; then we must not forget the *Montbretias*. The Iceland Poppies flower

again very nicely if the seed-vessels are cut off and the plants tidily trimmed. Then the *Michaelmas Daisies* come creeping out and the tall *Chrysanthemum uliginosum* and the *Helianthus* make our borders purple and white and gold. Dahlias we do not like in our borders, for the first frost blackens their foliage disastrously, so they must dree their weird in a bed apart. But it is time to conclude an article that has already exceeded its limits. I hope in my next to discuss what plants to grow for the mixed border, and their annual preparation in the reserve garden, and I propose to make some suggestions for herbaceous bedding in colour sections, and I shall also describe a successful border so treated.

AUGUSTA DE LACY LACY.

A GENERAL CALENDAR.

ROSES IN POTS.

WHEN the pot is crowded with roots repot the plants. The best plan, however, is to glance over the stock occasionally through the summer months, and whenever a plant is seen growing vigorously always repot it, but a general repotting should take place at least once a year, and September is undoubtedly the time for it. A good portion of the old soil should be shaken away, all suckers and worms removed, and such plants as require it placed in larger pots.

Tea-scented Roses.—Every collection of pot Roses should include a quantity of these. The flowers are generally large, and the colours in some cases remarkably rich, and in others peculiarly soft and delicate. Some of the varieties cannot be depended on in all soils and situations when grown in the open ground. They vary much in degree of hardness, but all are sweet, and many of them are excellent for forcing.

Carnations for winter flowering.—Border Carnations are generally layered as early as possible, and it is not always easy to discriminate between the grass and the flower shoot, consequently many of the latter get layered. These, if carefully removed from the parent plant and potted up in good soil, leaf-mould and sand, will with careful handling grow on and flower for a long period in a house that is just sufficiently warm to keep out frost, thus adding greatly to the Tree varieties, which by that time may or may not be in bloom.

Apples.—This crop, taking it as a whole, is fairly satisfactory throughout the country, and the quality of the fruit bids well to be far above the average. Most of the early varieties are good in colour, and of excellent flavour. Judging from present appearances, the later varieties will be good also. Those who wish to make their Apples cover as long a season as possible should prepare for gathering. It is generally accepted, but an erroneous idea, that Apples keep best when allowed to hang on the trees as long as possible before gathering, but I have found by experience that such is not the case. Most Apples, especially the early varieties, keep best when picked as soon as they will part from the tree with their stems intact. The general tendency is to leave the early Apples too long on the trees, whereas they might be housed where they will be out of the reach of birds and wasps.

Shropshire Damson.—The fruit of this variety is much larger than that of the common black Damson, and more oval. This is a better variety than the common sort for preserving, and makes an excellent jam. In 1895 I planted ten young *Shropshire Damson* trees in the gardens here (Ashwellthorpe Hall, Norfolk). I have gathered some fruit almost every year, and this year I have gathered an excellent crop from all the trees. This will show that *Shropshire Damson* trees will fruit in other counties besides *Shropshire*.

Winter Turnips.—The latest sowings of these should now be made on land held in readiness for the same. Turnips as a rule are not needed of

greater size than a cricket ball, and if sown in September the roots will be large enough. Small roots keep better; they are sweeter and more solid. It will be well in case of any deficiency to sow a few rows of the Early Milan type for present use. These do not keep, but they provide roots in advance of the winter sorts. Now is a good time to sow the yellow-fleshed Turnips, as these are hardier, keep longer, and the quality is equal to, indeed, often better than, the white-fleshed varieties. Where Turnip tops are in requisition these will furnish a good supply in the spring when other vegetables are sometimes scarce.

T. B. FIELD.

CORRESPONDENCE.

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

DAMSONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In your leading article (September 10) you infer that Kent growers only cultivate the Farleigh Prolific or Cluster Damson. As large raisers of trees for the market planters, we beg to say that we have for many years sold thousands of other kinds. Before naming them we would remark that the Farleigh Damson can be, and is, raised from suckers, and such trees have been largely planted because they are cheap, but they form hard, knotty stems, topped by rugged, thorny heads, and the fruits are small and wanting in flesh. On the other hand, trees worked in the usual way by budding make clean, straight-stemmed trees, with free-growing heads, and the fruits are double the size of those from suckers. It is still planted because it is a tremendous bearer; but for quality, combined with fertility, there is none to beat Bradley's King of Damsons; this makes a pretty, compact tree. Another variety, the Frogmore Damson, grows more like a Plum, and bears large and delicious fruits, and is valuable for an early picking; it is quite good enough for dessert. An older and largely-planted variety is the Shropshire or Cheshire Damson. This hangs often into November, and is called in the market the Pruant Plum or Prune Damson; it makes a flat-headed, weeping tree, with large leaves, and bears freely every few years; when fully ripe the fruits are very good for bottling, tart or jam. It is the largest variety. We have grown the Prune of Hereford, a small-leaved tree of upright growth, but discarded it, as we never yet had a satisfactory crop. The Damascene of Evesham is a very fine large Damson in that district, and is raised from suckers, but with us it takes years to form a tree, and is so thorny and of such spindling growth that we fail to get buds. Rivers' Early Damson is useful in the Plum season, and the White Damson is good for a late supply.

Maidstone.

G. BUNYARD AND CO.

LABURNUMS ON ARCHES AND PERGOLAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—How effectively Laburnums can be employed on pergolas and arches I have lately had many opportunities of seeing. Lord Battersea in his charming garden at Overstrand in Norfolk has employed this plant with good effect. Some years ago short standards were planted on each side of a path and the branches arched over, the drooping racemes producing a glorious mass of colour in early summer. The pillars of the pergola, built last year, are 10 feet high and as much apart. To connect the pillars on the top large, untrimmed, peeled Oak branches are used. Here and against the pillars are planted standard Laburnums; the branches quickly reaching the top are trained along the Oak beams and make a fine display. At West Dean Park, near Chichester, Mr. W. James has an archway 70 yards long, 12 feet wide, and 8 feet high. This archway is completely covered with branches of the Laburnum, which are carefully pruned or spurred back, so that a full

crop of yellow blossoms is secured annually. To relieve the somewhat naked base of the tree stems and each end of the wooden archway frame Irish Ivy is employed most effectively. The ordinary Laburnum vulgare is usually employed, as it gives abundance of flower. The Scotch form of *L. alpinum*, with its longer racemes, larger and more handsome foliage, would be quite suitable for a taller structure. This, in my opinion, is quite the best of Laburnums.

E. MOLYNEUX.

THE GARLAND ROSE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose a photograph of the Garland Rose growing over an arch in my garden. It has been very much admired this summer.

Tyneham, Wareham, Dorset.

MRS. BOND.

DESTROYING WASP NESTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—To destroy wasp nests soak a piece of rag in turpentine when all the wasps are at home. Push the rag into the nest with a stick and cover the hole with a piece of turf, stamping it down. If



THE GARLAND ROSE IN A DORSETSHIRE GARDEN.

there is more than one entrance to the nest do the same to each. When the buzzing ceases (in about ten minutes) dig out the nest and destroy the grubs which otherwise would hatch out. There is no need to set light to anything, as it is quite effectual without this.

Buxted.

F. V. H.

THE PLUM CROP.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I note in a recent number that a correspondent, writing of Plums, says they are hardly required after September. It is a question if this is the general experience, certainly I have not found it so; on the other hand, they are welcomed as long as they can be supplied, alike for dessert or cooking purposes. For the latter especially they are in demand all through October, as a change from Apples, stewing Pears, and late Currants and Cherries. November 10 is the latest date I have gathered within the last few years; both Coe's Late Red and Blue Imperatrice were very fair in quality on that date, and a consignment picked then for bottling purposes turned out in splendid trim at Christmas. The principal object of this

note is to suggest the advisability (when planting operations are in progress) of a judicious selection to follow each other in their respective seasons, both for dessert and kitchen, and not to plant a lot of sorts that would ripen together. A careful selection will give a succession from the third week in July until the beginning of November. Like all other fruits, Plums vary considerably on different soils, and it is well before planting largely to have the experience of a grower who makes fruit trees a speciality. Here, in West Surrey, with a light soil and sub-soil, I find Oullin's Golden Gage, Green Gage, Transparent Gage, Jefferson's Reine Claude de Bavay, Coe's Golden Drop, and Iekworth Imperatrice for very late work the best for dessert, and Early Prolific, Czar, Kirke's, Victoria, Pond's Seedling, and Coe's Late Red the best for culinary purposes. Our Plum wall, 150 yards long, is always protected in spring with a double thickness of $\frac{1}{2}$ -inch mesh netting as the blossom, especially when erect, is very susceptible to frost. A correspondent in a recent number, when writing of the Nectarine, raised a doubt as to its hardiness. Did that refer to the blossom? If so, my experience is that Nectarine flowers will come unscathed through weather which would render a crop of Plums an impossibility.

Esher.

E. L. B.

OVERCROWDED SHRUBBERIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Judging from the planting going on around us the chief object appears to be immediate effect. This may be well enough in some cases, but at the best it is a wasteful method, even when one feels quite sure someone is coming after us to do the necessary thinning and give a timely check where there are too many leaders or the tree is developing unequally. Every planter ought to make himself acquainted with the average height and dimensions that the trees will have when they reach full development and arrange the sites for the permanent features first, then filling in with temporary things. Usually the mistake is made in planting what are called "nurses." If the situation is bleak and exposed plant the nurses in a belt outside, and the really good and choice things will not be crowded out and ruined by them. There are plenty of what one may term "wind-resisters," suitable for seaside or other exposed situations. The common Gorse where there is plenty of room makes a capital wind-break. After the Gorse might come the Austrian Pine in a double or treble row from 8 feet to 9 feet apart. A few Canadian Poplars may be mixed with these till the Pines grow up, when they may be gradually cut out. This Poplar bears cutting well, and makes a splendid hedge 12 feet high and a good wind-break even in winter when the leaves are down, as the twigs, from frequent cutting back with the shears, form a dense thicket of branches. Inside a shelter of this kind you may carry out any kind of gardening in the most perfect and satisfactory manner. Instead of filling in the shrubberies with common things till the better sorts get up, fill in with groups of hardy plants.

Annuals will come in useful, especially near the margins—masses of Lupins, Malvas, pink and white single Hollyhocks, Michaelmas Daisies, Foxgloves, yellow Evening Primrose, and herbaceous Phloxes. I think the effect is better when irregular-shaped patches of distinct colours are planted. Large patches of white and crimson Phloxes, white Foxgloves, and yellow Evening Primroses are charming among dark-leaved trees and shrubs; in fact, I should be inclined to plant the permanent trees and large-growing shrubs at rather wide intervals, for the express purpose of leaving spaces for effective groups of hardy plants. Antirrhinums are simply splendid for massing in distinct colours among shrubs till the latter get up and overpower them. *Lunaria biennis* (Honesty) is a very useful plant for banks and rough places, and once started will take care of itself. Snowdrops, Winter Aconites, Wood and other Anemones, and Lilies of various kinds, including Lent Lilies (so-called), are appropriate, as are also Solomon's Seal and Lily of the Valley. If the ground is trenched

before planting there will be no work for the man with the spade. Weeds can be kept down by using a small hand fork and a small Dutch hoe, but the plants will keep down weeds if the ground is thoroughly prepared and cleaned before planting. E. HOBDAY.

MESEMBRYANTHEMUMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A considerable amount of uncertainty exists in the nomenclature of the Mesembryanthemums, the description of the blossoms of many species in the horticultural dictionaries being often utterly dissimilar to the flowers borne by plants grown under the same names in some of the best collections. Doubtless in the list given by "K. L. D." of the most desirable species the names are correct, but I confess to being somewhat surprised that *M. acinaciforme*, *M. tenuifolium*, and *M. roseum* are not included in the selection. The first-named has the largest flowers of any Mesembryanthemum with which I am acquainted, the blossoms being slightly over 4 inches across and of a deep rose colour. An illustration of this in flower in the open in South Devon appeared in THE GARDEN on page 362, Vol. LXII. The foliage is almost identical with that of *M. edule*, but the flowers are larger and far more attractive in tint. *M. tenuifolium*, as grown in the fine collection at Abbotsbury Castle, Dorsetshire, is the most brilliant of the whole race, the flowers being of a dazzling scarlet; a large plant, a sheet of bloom, was such a mass of glistening brightness in the sunshine that it was almost impossible to keep the eyes fixed on it. I was informed that this had been named at Kew, where *M. acinaciforme* was named from flowers sent by me, so that the titles of these two species may be taken as correct. The plant generally grown under the name of *M. roseum* is a most profuse blossomer. An illustration of this growing in the open in South Devon appeared in THE GARDEN on page 363, Vol. LXII. As, however, flowers have not been submitted to Kew, it may possibly be incorrectly named. I notice that in "K. L. D.'s" list *M. amœnum* is given as rose. Many years ago I brought from the Cape a scarlet Mesembryanthemum, which I sent to the head gardener at Abbotsbury. A year or two after, on visiting the gardens, I found it in flower, and was pointed out *M. amœnum*, as grown at Abbotsbury, as being identical with it, which it certainly appeared to be. The plants were bright scarlet, but on comparison with *M. tenuifolium* the latter was thought to be rather more brilliant. The foliage of both was very similar.

S. W. FITZHERBERT.

NURSERY GARDENS.

NEW ROSES AT WALTHAM CROSS.

AS every rosarian is aware the old town of Waltham has given its name to many beautiful Roses, such as Beauty of Waltham, Star of Waltham, Pride of Waltham, &c., and it says much for their quality that they are found to-day in almost every exhibition-box, although some of them were introduced upwards of forty years ago.

Our quest on this occasion, however, was not old but new Roses. We were, nevertheless, glad to renew acquaintance with many a flower of bygone days. Probably there is no nursery in this country where such extensive collections of Roses are grown as at Waltham Cross. Before the war in South Africa the firm fulfilled an order for a thousand varieties for the Cape, and every one who has watched events knows full well that the novelties since that time have been prodigious.

There is no place like a good nursery to gather information about the best varieties for massing in quantity. At Waltham Cross one may find the popular varieties grown by the thousand. The pet Roses were excellent, and no wonder the firm were enabled to gain the 50 guinea cup at the

Temple show this year for the best individual exhibit from such an abundance of material here displayed.

The work of hybridising the Rose is carried out at Waltham Cross in a thoroughly systematic way under glass. The splendid pods of ripening seed, some as large as small Pears, and produced upon all up-to-date sorts, as well as upon the firm's own especial strain of Riviera Roses, will surely yield a rich harvest of beautiful novelties, and we can only hope that Mr. William Paul will live to see many more triumphs of the firm which he has done so much to establish. To mention a few of the recent novelties introduced or about to be introduced the first to name is

Earl of Warwick.—This was seen in splendid form, and we prophesy this Rose will be wanted in every garden. The flower displays a beautiful combination of tints, the prevailing hue being salmon-pink with vermilion centre. The huge petals are as fine as those of *G. Nabonand*, but it is in its high centred form equal to an exhibition Rose, although not too full for garden decoration. Apparently the growth is as free and robust as Viscountess Folkestone and similar sorts.

Countess Cairns is a seedling from President and Caroline Testout. This is also a beautiful decorative Hybrid Tea, the colour being cerise-carmine, flowers very large, but not full. They are borne erect, on fine vigorous growth, which makes the variety an excellent addition to decorative Roses.

Irene is another seedling of Caroline Testout, crossed with the beautiful Hybrid Tea *Mme. Jules Finger*. This Rose is really a white Caroline Testout, the flowers being pure in colour and of finer form than other white varieties of this popular Rose.

Mrs. A. Byass completes a quartette of beautiful novelties for this year. The latter Rose seems to combine the good points of four beautiful sorts, viz., *Comtesse Festetics Hamilton*, *Beauté Inconstante*, *Christine de Noué*, and *General Schablikine*. The colour of *Mrs. A. Byass* is madder rose, shaded with crimson, and there is an extraordinary tendency to variation in the flowers. Another decorative Tea that has a great future is

Warrior.—This may be described as a deeper coloured *Papa Gontier*, although the plant is more vigorous. The colour is certainly deeper, the buds being quite a mulberry-crimson.

Messrs. Paul will distribute next year two very fine Hybrid Perpetuals. One is named after a very skilful rosarian,

David R. Williamson.—The colour is bright cerise. The flowers are large and of splendid form. It will be a grand show Rose.

Messrs. Paul are also hybridising amongst the popular ramblers and trailers and other types. Their Waltham Rambler is now well known. If late flowering ramblers are desired, so also are very early sorts. At present they are comparatively few in number. Messrs. Paul have a beautiful variety for distribution next year. When in bloom early in June it is a perfect avalanche of snowy-white flowers. The variety which has not yet been christened might almost be called a rambling *Mme. Plantier*, only the individual flowers are more beautiful. It will make a fine companion to *Carmine Pillar*, *The Dawson*, &c. Two fine wall climbers are *Field Marshal* and *Golden Queen*, a beautiful and taking golden colour. We saw at Waltham Cross a batch of pot plants of that beautiful new decorative Rose

Etoile de France.—The flowers are as large as those of *Duke of Teck*, and of a beautiful crimson colour, buds deep and handsome, and a delicious fragrance. The growth is as free as *Mme. Abel Chateau*, from which variety *Etoile de Lyon* was raised. It is also perpetual. The raiser, *M. Pernet Ducher*, will be justified in regarding this as one of his greatest triumphs. We understand the variety will be distributed during the coming season. We saw large breadths of the many excellent Waltham Cross novelties of the last few years, among which we may mention *Morning Glow*, *Sulphurea*, *Corallina*, *Arcthusa*, the first yellow China Rose, *Elizabeth Kitto*, a dwarf bedder, *Dainty*, well named with its egg-coloured blossoms tipped red, *Fortuna*, *Chameleon*, &c., and the vigour and

splendid branching habit of most of the kinds impressed us as being excellent traits in garden Roses. Exhibition Roses receive two fine additions in *Boadicea* and *Corona*. Low hedges of Roses are a delightful feature of the modern Rose garden. A worthy addition to the number of useful kinds for this purpose is *Floribunda*, well named, as it is indeed a mass of blossom, with every flower of perfect shape, and a dainty rosy flesh colour. It will be seen that there is no want of novelty to select from at the present day whatever one may desire to plant. Messrs. Paul have also some hundreds of seedling Roses upon trial, many with pedigrees that are most promising, and we shall watch their development with interest.

THE FRUIT GARDEN.

A VALUABLE EARLY DAMSON.

IN the northern part of the country the ordinary Damson will not thrive as well as one could wish (of course there are exceptions); I have seen many gardens where these trees fruit very sparingly, and the growth is poor.

The early Damson I have seen thrive when others have failed is known as *Rivers' Early*. It is a seedling from a *Plum St. Etienne*, a heart-shaped early dessert variety, not large, and the seedling resembles it in this respect, as it is not unlike an early *Plum*, but with a distinct Damson flavour. It ripens early in August, but this season it is later than usual, and the trees are more like the ordinary Damson, having downy shoots. This Damson was given an award of merit on the 14th ult. by the fruit committee of the Royal Horticultural Society, so that it will be seen it is a much earlier fruit than the common sort, and it is a very good cooking fruit. Being so distinct from the others it will be found a welcome addition in gardens where small stone fruits are required. I recently saw the *Early Damson* grown as a bush, and the result was excellent. Though it is well to have a small part of the stem clear of the soil, the trees grown thus escape rough winds and the fruit is more readily gathered.

A NEW AUGUST PLUM—HERON.

THIS is one of the recent introductions, and this season the crop has been so good that I have placed it in the front rank as a valuable cooking variety. In past seasons *Heron* cropped when others failed, and this made it a greater favourite. This season, however, we have it by the side of *The Czar*, and it is cropping in the same free way; it is a most useful variety to follow the last named. Some growers describe it as a kitchen and dessert variety, but I am inclined to class it as a culinary fruit, as it is a very good cooking sort, and crops when others fail. This also is one of the *Sawbridgeworth* seedlings. *Heron* is a variety that will be more liked as it becomes better known. It is a large purple and red fruit, and the trees grow freely in most soils. Here at *Syon Plums* are not at home, the soil being light, resting on gravel, but the variety described is one of our most reliable fruiterers, and should be a good *Plum* for amateurs who only have limited space and can only grow a few varieties.

PLUM THE CZAR.

THIS *Plum* is so good this year that a brief note as to its value may not be out of place. In the *Thames Valley The Czar* is a great favourite in most gardens, especially for market. This is another of Messrs. *Rivers'* seedlings, and is called a kitchen or dessert variety. For dessert it must be allowed to hang until full ripe, and then it is sweet and refreshing. I think its earliness is its chief value; it also crops freely and cooks well. It is as early as the *New Orleans*, a very profitable market *Plum*. The fruits do not crack in wet seasons like those of some sorts, and the tree succeeds in any form, but as a dwarf standard I

think it the best all-round early August Plum we have. In the North The Czar on a west wall rarely failed to crop.

APPLE BEAUTY OF BATH.

It is interesting to note how firmly this handsome early dessert Apple holds its own at some of the flower shows about the country in which dessert Apples are exhibited. It is pre-eminent for its attractive appearance, being handsomely marked with bright red. It possesses a brisk flavour, and when it becomes well established bears freely. This, with Mr. Gladstone, Irish Peach, Devonshire Quarrenden, Red Astrachan, and Lady Sudeley make up a useful half-dozen varieties for August, September, and October. R. D.

A SEPTEMBER PEAR—DR. JULES GUYOT.

For the past few seasons this Pear has proved so reliable that I consider it is well worth a note as an early fruit. It is a large fruit, not unlike Williams' Bon Chrétien; indeed, it is difficult to tell them apart when on bush trees, but as a standard the newer variety is more compact. As a keeping Pear it is of no value whatever, but for use at the end of August and early in September it is worth room on account of the good crop it gives. Its greatest fault is that if stored it decays quickly at the core, so that it should be eaten a few days after being gathered. The fruit is quite different from Williams'; it has not got the peculiar flavour of the last named, and the flesh is very tender, melting, and juicy. When the fruit is gathered at the right time and eaten soon it is excellent. The fruits are handsome, the skin a pale yellow, with crimson blush on the sunny side, and the best results are secured when the Quince stock is used. It is then a compact grower, and when its size and free cropping are considered it is a useful Pear for amateurs. As an espalier or cordon it is very handsome, but the fruits should be thinned. It is excellent for market, as it commands a ready sale. G. WYTHES.

FIGS IN THE CHANNEL ISLES.

Figs have always been largely and well grown in the Channel Islands, in the first instance, of course, in the open air, before we exported fruit. In those days large trees were trained flat over wooden framework, varying in height from 4 feet at the front to 6 feet at the back. Many of these trees are still grown for supplying fruit in its natural season. When forcing came into favour many of these large trees were covered with glass, and in some instances pipes and boilers were employed. The increase of profit was of course very great, but many of the trees so treated died after a few years. This no doubt was largely caused by lack of water during the winter and early months of the year. A few large trees which would now be valued were actually cut out owing to prices falling for a time. Some old trees under glass, however, are still doing well. But the new grower now generally grows pot plants, or small trees planted on the floor and trained over the roof. In the latter case root-pruning is found to have excellent effect in restricting excess of vigour. Generally speaking, the crop may be looked upon as profitable. Figs are still not generally liked, however, so that it would probably be easy to glut the market. It certainly would not be wise for a grower to go in too largely for Fig culture. Many varieties have been tried, but Brown Turkey alone appears to meet with general favour. It is found to be much the most reliable and productive, and these, of course, are points that a market grower attaches most importance to. The right selection of varieties is very essential in fruit culture for market. A CHANNEL ISLAND GROWER.

GARDENING OF THE WEEK.

FLOWER GARDEN.

CARNATIONS.

LAYERS which were pegged down last month are now rooted and fit for removal. As a rule, there has been sufficient rain to thoroughly moisten the soil, but if there is the slightest suspicion of dryness at the roots the beds should receive a thorough watering some hours before the layers are taken up. The connecting stem must be cut with a sharp knife and the young plants lifted with a good ball of soil. Set the plants out at a distance of from 12 inches to 18 inches, according to the robustness of the variety, and plant fairly deep and firmly. If the plants are likely to be blown about by the winds, a few short, stout sticks placed around the stems will keep them steady. If necessary apply water after planting. On bright days a syringing or damping with a fine rose can will prevent flagging. Marguerite Carnations require the support of neat stakes, and the surface soil should be frequently hoed. If the bed can be afforded some protection during heavy rains and

done before the growths become tough and hard to cut. This work should be done with great care and judgment, as any mistakes that are made will be apparent for many months.

HERBACEOUS BORDERS.

Now that the dull portion of the year is coming upon us, the greatest neatness and cleanliness are more necessary than ever. Many of the early-flowering annuals that are spent should be entirely removed. Such gaps may be filled with spare plants of *Doronicums*, *Wallflowers*, &c. All dead flowers and seed-vessels must be constantly cut off, and with herbaceous plants, which are becoming shabby, they should be cut down to the ground. *Michaelmas Daisies* are beginning to make a show, and any tying of these that may be necessary should be done with a light hand. The heavy dews tend to increase the growth of the lawns and of weeds in the walks. A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

DORONICUM PLANTAGINEUM.

WHAT a useful plant this is for growing in pots to flower very early in the spring. No attempt should



FIG TREE TRAINED OVER HOUSE ROOF IN THE CHANNEL ISLANDS.

when frosts are expected the flowers will be much cleaner and their season prolonged.

VIOLETS.

As they appear all runners should be removed to restrict the plants to one crown. Frequently stir the surface soil and remove all weeds. An occasional syringing with weak liquid manure water, well wetting the under surfaces of the leaves, will keep down red spider.

WIND AND WALL PLANTS.

With the autumn equinoctial gales may be expected, and it will be wise to examine all wall plants to see that they are securely fastened. Plants of doubtful hardiness should be kept well thinned and have all soft shoots removed, as thoroughly ripened growth stands a better chance of passing through the winter. The side growths of *Roses* on walls or fences may be shortened to 12 inches or 15 inches and superfluous growth removed. Box edging should now receive its last clipping, and all hedge pruning and topiary work

be made to force—by artificial methods—the plant early into flower; better far to pot up at once portions of the roots, and keep them well watered. The roots of plants that are potted up early make growth, and become semi-established in the pots before severe winter weather commences. At the proper time there is no difficulty in bringing plants so prepared into flower with practically no artificial aid.

ANEMONE FULGENS (SCARLET WINDFLOWER)

is another neglected but very useful plant for growing and flowering in pots early in the year. Pot up the bulbs early, and afterwards plunge the pots in sand, where they can make plenty of roots. In a porous light soil the bulbs will root freely, and directly top growth commences remove them from the sand-beds to any position that is cool, light, and airy.

ROSES IN POTS.

The stock of these required for early forcing should be thoroughly overhauled, and while a few

may need moving to larger pots, the majority, perhaps, will require only to be top-dressed. Discontinue giving manures, and see that the crock holes at the bottom of the pots are perfectly clear. Afford them the most exposed position, where sun and frost also can reach them.

TUBEROUS-ROOTED BEGONIAS.

Although these plants are beginning to lose their flowers and foliage, it is a mistake frequently made to discontinue the application of water to their roots so that the foliage flags, for their thick fleshy stems shrivel prematurely. Directly the plants become unsightly remove them to the frame, where they can be given water as required, and where the bulbs—through keeping their stems and foliage in a healthy state—will mature properly, and be in a condition to keep well throughout the winter.

KALANCHOE FLAMMEA.

Cuttings made from the young side-shoots should now be inserted, the strongest singly in 2½-inch pots, and the weaker ones from six to eight in 4-inch and 5-inch pots. These will root freely, and before winter weather sets in will be ready for potting singly. With care afterwards they will grow steadily throughout the winter, and be ready in the spring for removal to their flowering pots.

CROTONS.

Good, well-coloured cuttings of these are more easily obtained now than at any other season, and, if taken off and rooted, they can be grown steadily on through the winter, and will, with good culture, afterwards develop into fine, handsome, single-stemmed plants, useful for grouping during the early part of next summer. J. P. LEADBETTER.
The Gardens, Tranby Croft, Hull.

FRUIT GARDEN.

PEACHES.

THE second early trees should be root-pruned if necessary. To do this cut out a trench deep enough to reach the drainage 3 feet or 4 feet from the stem, according to the size of the tree. Cut off any strong roots and partially lift some of the others, returning some of the same soil with an addition of fresh compost. In planting fresh trees see that the drainage is good, prepared of broken bricks, and covered over with lime rubble, afterwards placing turves grass side downwards. The compost should be good turfy loam, mortar rubble, and wood ashes, with a fair sprinkling of bone-meal, returning with it a fair proportion of the old soil. In removing a tree open out a trench about 4 feet from the stem, and carefully reduce the old soil with a fork, leaving a mass of roots and soil that can be conveniently removed on a hand barrow without breaking. Plant rather high and keep the roots at different levels near the surface. Cut back any strong roots and those that are damaged, and make the soil firm. Give a good watering, frequently syringe, shade the trees in bright weather, and keep the house close for a time. Treated in this way a fair crop of fruit may be expected from them next year. When the fruits are gathered from later trees thin out those shoots not required for extension. This will assist in ripening the growths for next year's bearing.

FIGS.

The earliest varieties of Figs grown in pots have now matured their growth, and should be placed out of doors and be top-dressed or repotted if necessary. Remove some of the old soil and give a rich top-dressing of good fibrous loam, lime rubble, and bone-meal while the roots are still active. Any that require repotting should have all exhausted soil removed with a pointed stick, and be returned to the same sized pot, or given a size larger to increase the size of the tree. Remove any weak shoots from planted out trees. This will help to mature the young growths. Protect the fruits of late varieties of Brown Turkey and Brunswick from wasps and flies with hexagon netting.

GATHERING FRUIT.

Most of the early varieties of Apples and Pears have been gathered. Later varieties should receive

attention as they become ready. Fine dry days should be taken advantage of, as on no account must the fruit be gathered when damp. Every care should be taken not to bruise the fruits or gather them before they are ripe, or the colour and flavour will be impaired and late varieties will not keep so well. Keep the fruit room dark, and see that the ventilators are opened occasionally to carry off excessive moisture.

Impney Gardens, Droitwich.

F. JORDAN.

KITCHEN GARDEN.

LATE PEAS.

THIS has been a good season for this crop. An abundance of pods are still to be had. For late crops I give a few names of varieties that have done very well in this district. Few Peas can beat Walker's Perpetual Bearer, if the true sort has been procured, which seems a difficult matter, as two rows in this garden show a great difference in height and as croppers. Sutton's Perfection Marrowfat is a late sort that can be depended on. Veitch's Perfection is also a most reliable sort. All growers should have a few rows of Dr. MacLean, this variety doing well in a wet and sunless autumn. The chief points to ensure success with late crops of Peas are to see that the ground is rich, to sow thinly, and to have the rows wide apart. The plan of sowing 4 feet apart, as for early varieties, is not to be recommended. I prefer the rows 12 feet apart, where this is at all convenient, the spaces being cropped with other vegetables. At most of the horticultural shows I have seen this year the favourite variety has been The Gladstone. It is a sure prizetaker, and is a most valuable late sort, having large beautifully-shaped pods of splendid flavour.

GENERAL WORK.

Advantage should be taken of dry days to continue the earthing up of Celery, which is now making rapid growth. The tops should be tied with matting to allow the earthing up to be carried out in a proper manner. Should the weather continue dry water may again have to be applied. All Onions should now be lifted and laid on boards in the sun, store on a dry day, and in a cool airy place. This is a most suitable time for relaying Box and other edgings. If the operation is carried out about this date the ground becomes settled before frost sets in. Remove all loose and yellow leaves from Sea Kale that is intended for forcing, to allow the crowns to ripen before lifting. Inspect plots of Spring Cabbage, making good the blanks or weakly plants. Parsley plants should now be transferred to frames, choosing the late sowings for this work. A few boxes should also be filled; they are handy for placing in heat should a scarcity occur. Another sowing of Lettuce may yet be made, and also of Spinach, choosing a warm sunny position. Continue to add small quantities of soil to Leeks growing in trenches. Good liquid manure from the farmyard may also be given if extra large roots are required.

*Hopetoun House Gardens,
South Queensferry, N.B.*

THOMAS HAY.

ORCHIDS.

MASDEVALLIAS.

THE present time is the most favourable to give these Orchids a thorough inspection, selecting those that require rejuvenating or repotting, so that they may be attended to at once. Others will benefit by removing the surface material and adding fresh for the young roots that are now being emitted. Many failures to obtain the best results are brought about by the plants not being potted often enough. We find those that have been given fresh material at least every other year much superior to those that have been treated precisely the same with the one exception of not being potted so often. Plants that have deteriorated, and this is often noticeable in large specimens, should be carefully pulled apart and potted up separately, growths will then appear all round the plant. I prefer, if large plants are desired, to establish them in small pots and remake the specimen when they have become well rooted.

COMPOST AND POTTING.

The compost used should consist of fibrous peat two-fifths, chopped sphagnum two-fifths, and good leaf-soil one-fifth, mixed well together with a fair quantity of small crocks and coarse sand. For the strong-growing, erect-flowering varieties ordinary pots are the most suitable, filling them for those that have good roots to the depth of one-third, and for the others the pots should be half filled with chopped rhizomes. Pot moderately firm, allowing enough room for a good surfacing of chopped sphagnum. When finished the base of the growths and the surface of the moss should be on a level with the rim of the pot.

AFTER TREATMENT.

Although many new roots are now being made they will require but very little water in any case. Those that have been repotted may be well watered once to settle the soil; then they should be allowed to become dry before more is given, and if the surface moss is slightly damped from time to time it will nearly suffice in maintaining enough moisture in the compost for their well-being. During this and next month damping between the pots is helpful, but overhead spraying should be stopped at once. They should still be kept well shaded; if given a position in a good Odontoglossum house that is well supplied with that most important yet sometimes neglected factor, fresh air, they will be found to respond freely to the treatment afforded. Thrip is often troublesome on them when the overhead spraying is discontinued, and, rather than subject the whole of the house to fumigating, I prefer sponging or dipping them in a safe insecticide.

MOST USEFUL SORTS.

Many are showy and useful decorative Orchids, and are certainly worthy of being better represented than they are at present in most collections. Perhaps those suited best for general work are *M. coccinea* (more often known under the name of *M. harryana*), *M. veitchiana*, and the fine variety *M. v. grandiflora* (perhaps the most beautiful and useful of all). *M. Davisii*, *M. ignea*, *M. schröderiana*, *M. triangularis*, and many others all have claims to more than a passing attention.

W. P. BOUND.

Galton Park Gardens, Reigate.

PLANTS THAT NEED CAREFUL HANDLING.

(Continued from page 198.)

COMPOSITEÆ.

(10.) *CASSINIA ACULEATA*, R. Br.—This shrub is sometimes known as "Dogwood," and Dr. A. W. Finch Noyes, F.R.C.S., surgeon in charge of the skin department of the Melbourne and Alfred Hospitals, read a paper* before the Medical Society of Victoria on this plant, which is accredited as the cause of eczema.

Details are given of seven cases, several of which suffered only when the Dogwood was in flower, and the patient had come in contact with it by brushing through the scrub and other ways. The symptoms indicate that minute particles of some kind, such as pollen from the flowers, or irritating particles from the bark, get between the clothing and the skin, and where there are loose folds of clothing in contact with parts of the skin inflammation is often produced. The eruption is often scaly, with great irritation, and a feeling described in some cases as if fire were running through the part. In one case a resident of Gippsland was driven from the district twelve years ago, and six months ago returned. He had a second attack of the eruption, which was relieved when he left the district. He determined to live down his susceptibility, and went back, but returned a few weeks ago with an eruption similar to that in previous attacks.

(11.) *Pyrethrum* (*Chrysanthemum*) *Parthenium*, Sm. "Feather Few."—The late Rev. H. E. Thomson, of Murrumburrah, N.S.W., could never

* *Chemist and Druggist of Australasia*, August, 1899, page 240.

tolerate this plant, which always produced an eczematous swelling on his face. He was fond of gardening, and proximity to this plant always distressed him. He tried to resist the effects, and finally had to remove all such plants from his garden.

PRIMULACEÆ.

(12.) *Primula obconica*, Hance.—Dr. S. A. L. Swan records* two cases which came under his notice in Ireland in which the symptoms produced by handling this plant resembled those of acute eczema or erysipelas. The effect of this plant on human beings is now well recognised by gardeners, and references to it in horticultural literature are frequent. For example, *Gardeners' Chronicle*, April 9, 1892, page 469.

At the same time some people are not affected by it. This is the case, however, with most plants which are irritant.

It is alleged that Dr. Riehl of Vienna has ascertained that the irritation is caused by the tiny hairs on the leaves and stalks.—*Gardeners' Chronicle*, May 4, 1895, page 558.

(13.) *Primula sineosis*, Sabine.—Eczema of the hands and face has been caused through handling this Primrose. It appears to be less virulent than *P. obconica*.—*Gardeners' Chronicle*, January 12, 1895, page 47; January 26, 1895, page 116.

EUPHORBACEÆ.

(14.) *Excœcaria Agallocha*, Linn.

(15.) *Excœcaria parviflora*, Muell. Arg.

These two yield an acrid juice which is more or less volatile, and which, if it gets into the eyes, will produce temporary loss of sight and other local irritation.

(To be continued.)

SOCIETIES.

SCOTTISH HORTICULTURAL ASSOCIATION.

The usual monthly meeting of this association was held in Dowell's Rooms, George Street, Edinburgh, on the evening of Tuesday, the 6th inst. There was a large attendance, and the chair was occupied by Mr. J. W. M'Hattie, superintendent of the City Parks and president of the association. The paper for the evening was read by Mr. John H. Cumming, Grantully Castle Gardens, Perthshire, its subject being the important one of "The Arrangement of Cut Flowers for House Decoration." The paper was one of the best of the session, the subject being treated in an attractive and exhaustive manner, so that its appearance in the "Transactions" of the association may well be awaited with interest by those not privileged to be present. Nothing of importance was omitted, and the treatment was such that even the most experienced could not fail to profit by it. The lecturer referred to the ineffective use frequently made of the material employed and the inartistic arrangements often produced by even the most graceful flowers and foliage. He deprecated the massing together of a number of different flowers without any attempt at symmetry or harmony, and pointed out the various principles which underlie the floral art of Japan as suggestive of some, at least, of the proper methods. He also showed how useful it was to be acquainted with the duration of the flowers employed in house decoration, and with the proper stage at which they ought to be cut. Many other practical questions were also discussed, and the whole question of arrangement fully considered. The discussion which followed was an interesting one, and Mr. Cumming was heartily thanked for his valuable paper. Several exhibits were on the table.

ROYAL CALEDONIAN SOCIETY'S SHOW.

The great autumn meeting of this society was held as usual in the Waverley Market, Edinburgh, under most favourable conditions, on the 14th and 15th inst., the entries being large, and the weather all that could be desired, ensuring a very satisfactory response from the public, who visited the exhibition in great numbers. Lady Linnithgow opened the exhibition on the first day, being accompanied to the platform by Lady Tweeddale and Mr. and Mrs. Usher. Lord Balfour of Burleigh, president of the society, was in the chair, supported by a large body of horticulturists.

FRUIT.

The most interesting feature of the show was the Grape class for eight bunches, for which Mr. Massie's Challenge Cup, value fifty guineas, with a gold medal and £15 was the first prize. The competition between the first and second collections was more than usually keen, the former from Mr. Goodacre, gardener to the Earl of Harrington, Elvaston Castle, securing 57 points, and the latter from Messrs. Buchanan, Forth Vineyard, Kippen, 56½ points, so that the cup was lost and won by the extremely narrow margin of half a point. Mr. Goodacre's Grapes were less bulky than Messrs. Buchanan's, his strongest bunches being the fine Muscat of Alexandria, Scottish examples all through the

show, including those of his antagonist, being far from ripe, while the Elvaston ones were about their best. The third prize was secured by Mr. Beisaut, Castle Huntly. The cup Grapes, it may be added, were, besides Muscat of Alexandria, the Black Hamburg, Madresfield Court, and Gros Maroc.

The decorated dinner-table brought two competitors only, Mr. Goodacre being first for fruit with 115 points, second for flowers with 23 points, and Mr. Kidd, gardener to Lord Elphinstoun, Carbery Tower, second for fruit with 107½ points and first for flowers with 20 points.

For a collection of ten dishes of fruit, confined to Scottish growers, Mr. Kirk, gardener to J. Thomson Paton, Esq., Norwood Park, was easily first, the Grapes being particularly fine.

In the class for twelve dishes of orchard house fruits Mr. Goodacre was first, with large and fine samples of Pears, Apples, Peaches, &c.

In the class for four bunches of Grapes Mr. Kidd was first; and in the single variety classes there was keen competition, though the quality as a rule was considered by competent observers to have been, if anything, inferior to that of last year. A new Grape shown by Mr. Kirk, named Directeur Tisserand, secured first ticket in the class for novelties, and, as shown, appeared a very handsome acquisition to the black section.

In the hardy fruit section there was a notable display of high-class produce in Apples and Pears alone, the increase of entries over last year, when these were shown in reduced numbers, amounted to no less than 204. In Apples especially, quality was good, the bulk of the prizes going to growers in Sussex, Surrey, Hereford, &c.

PLANTS.

In the section devoted to plants there was little calling for special mention, the specimens, though well grown, being somewhat smaller in size than is usual with exhibition plants in the South. Worth mention, however, was the class for a group of miscellaneous plants, arranged on the floor of the building in a circle 18 feet in diameter, the first prize group from Mr. Hughes, Kingsmeadows, Peebles, being furnished with capitally-grown plants, particularly well arranged.

CUT FLOWERS.

Cut flowers showed some improvement over last year, there being an increase in entries and also an improvement in quality. Of Sweet Peas alone there was an enormous quantity, the size and colour of the blooms calling forth the admiration of visitors from the South. Mr. Duncan, Fozo, Duns, secured first in the twelve bunch class, Mr. Malcolm, Duns, being a close second; and for six bunches Mr. Gorenlock, Galsburghs, was first, Mr. Duncan being second.

Of Carnations and Picotees, which were all shown in vases, there was a most extensive display, Mr. Innes, Hawick, beating all competitors in the three classes.

Specially beautiful, too, were the Roses, which formed one of the chief attractions of the show. The blooms, as could hardly be expected, were not large, but they were perfect in form and of clear and bright colouration. Messrs. Black, Kinglassie, Dalgarro, Arbroath; Whyte, Helensburgh; and Brydon, Innerleithen, being the chief contributors. The last named staged, too, splendid groups of herbaceous plants.

Of vegetables there was a grand display of single dishes in great variety. The tables of vegetables, however, were only two, Mr. Hooper, Tulliebolton House, Perth, being easily first with a varied and high-class collection.

There was a small section for cut flowers devoted to nurserymen. In this Dahlias bulked largely, but Roses were undoubtedly the best and most attractive feature. For thirty-six blooms Messrs. J. Cocker and Sons, Aberdeen, were first with fresh and attractive blooms; Mr. Hugh Dickson, Belfast, second.

For eighteen blooms Messrs. D. and W. Croll, Dundee, secured first; Messrs. Dicksons and Co., Craigmillar, second. The best twelve blooms were staged by Messrs. W. and R. Ferguson, Dunfermline, while Messrs. Croll, with lovely blooms, were first for twenty-four Teas.

There were also well-filled classes for various coloured Roses, Hugh Dickson (crimson), Mrs. J. Laing (pink), and Frau Karl Druschki being the best Roses in these classes. Messrs. Cocker and Son secured first for twelve vases of Roses and for a collection in which Dorothy Perkins was conspicuously fine.

TRADE EXHIBITS.

These were numerous and generally fine. Large groups of plants were contributed by Messrs. Laird and Sons, Limited, Pinkhill; Messrs. Methven and Sons, Warriston; and Messrs. Cunningham, Fraser and Co., Comely Bank. An interesting collection of Apple trees in pots from Messrs. Storrie and Storrie, Dundee, was much admired. In cut flowers Mr. Eckford, Wem, contributed Sweet Peas; Mr. Forbes, Hawick, florist's flowers, among which Carnations, Phloxes, and Pentstemons were extremely fine. Messrs. Dobbie and Co., Rothessay, staged a wonderful display of the best Cactus Dahlias with other flowers; and Messrs. Cunningham, Fraser and Co. herbaceous flowers, Kniphofia Rufa and others being splendid. Messrs. Cocker also set up a large stand of herbaceous material along with Roses, while Messrs. Grieve and Sons, Pilrig, had fine Chrysanthemums; and Mr. Lister, Rothessay, Violas. The King's Acre Nursery Company showed a large collection of well-finished hardy fruits. Several exhibits were certificated by the committees of the society, and all the above exhibits were awarded medals.

LECTURE.

Under the auspices of this society a lecture on "Potato Problems and Developments" was delivered in the hall of the Young Men's Christian Association, St. Andrew Street, Edinburgh, on the 14th inst. There was a good attendance, presided over by Mr. J. W. M'Hattie, city gardener. The lecturer was Mr. Walter P. Wright, secretary of the National Potato Society, who was briefly introduced by the chairman. Mr. Wright gave a very interesting lecture, commencing at the outset the objects of the National Potato Society, and asking the support of his hearers to the movement. He next

dealt with the importance of the Potato crop to the community, pointing out that it was estimated that the total produce of the tuber of the three kingdoms, estimated at a value of £3 per ton, amounted to no less than £20,000,000 per annum. He believed that the demand for Potatoes would continue to increase, and considered that new uses for the tubers might be found. The appointment of the committee on duty-free alcohol for manufacturing purposes was cited as affording reasonable hope for opening out a new use for the Potato in the making of spirit for such purposes. The growing of seed Potatoes was also referred to, and Mr. Wright observed that there was surely here an opening for horticulturists, who had left this trade largely in the hands of the farmers. Experiments with manures were also spoken of, Mr. Wright's own experience being in favour of cow manure, with, in some soils, the addition of some superphosphate and kainit, or sulphate of potash and steamed bone flour. His ideal manure was cow dung, with a light dressing of kainit. Diseases, change of seed, the greater stamina of early varieties, and several other questions were fully discussed, Mr. Wright concluding a very interesting lecture by giving an account of the behaviour of a number of varieties in his own garden and trial grounds. A most interesting discussion took place at the close, this being taken part in by the chairman and Messrs. Davie, Smith, Scarlett, Taylor, Yarlow, Niven, M'Laren, and Laird. On the motion of Mr. P. Murray Thomson, seconded by Mr. Blanshard, a hearty vote of thanks was accorded to Mr. Wright. A suggestion that the lecture should be printed and issued by the Royal Caledonian Society, made by Mr. Davie of Haddington, was greatly approved of by the audience.

LONDON DAHLIA UNION.

This association held an excellent show at Esrl's Court on Thursday and Friday of last week. Many beautiful flowers were shown in the competitive classes, and, in addition, there were some splendid trade displays. Certificates of merit were granted to several new varieties, particulars of which will be found below.

For the best display of Cactus Dahlias, arranged with foliage of any kind, Mr. Seale, Vine Nurseries, Sevenoaks, won the first prize with a very handsome display, the flowers being arranged in Bamboo stands and vases. Messrs. Cheal and Sons, Crawley, were second.

For six vases of distinct Cactus Dahlias, Mr. Mortimer, Farnham, Surrey, was first with lovely varieties, of which we give the names, as they may be taken to be six of the best: Winsome, creamy white; Manxian, glowing red; Clara G. Stredwick, apricot-buff; Mrs. H. L. Brousson, a similar but much paler flower; Mrs. John Barker, rosy red; and Percy Mortimer, yellow centre, outside petals rose. Messrs. Chesel and Sons were second.

For three vases of Cactus Dahlias, distinct (new varieties of last year), Mr. Seale was first, showing Osprey, a rich yellow flower, splashed with bright red; Rainbow, a lovely light rose, with paler centre; and Mavis, apricot-buff. Messrs. Keynes, Williams, and Co., Salisbury, were second.

CACTUS DAHLIAS.

Twelve varieties in bunches of six blooms: First, Messrs. J. Stredwick and Son, St. Leonards-on-Sea, with a very beautiful lot. Lady Colin Campbell is a rich yellow; H. F. Robertson, lemon-yellow; Columbia, bright red, the petals tipped cream, all very distinct. Messrs. J. Cheal and Sons were second. Rainbow, lilac-rose, with paler centre, was very beautiful. Third, Mr. Stredwick, Westfield, Woking.

Twelve blooms, distinct: First, Mr. Seale, Sevenoaks. Lord of the Manor, bright red; Slough Rival, ruby-red; and Mrs. Mawley, light yellow, were of the best. Second, Mr. Baxter, Woking; third, Mr. Turner, Slough.

Twenty-four blooms of Cactus Dahlias: First, Messrs. J. Stredwick and Son, St. Leonards. J. B. Riding, Thomas Parkin, and Pearl were very fine. Second, Mr. S. Mortimer, Farnham, Surrey, with some lovely blooms.

Six bunches of Pompon Cactus Dahlias: First, Mr. John Walker, Thame, with Freedom (dark red), Coronation (bright red), Purple Gem, and others; second, Mr. Seale.

Four varieties: First, L. McKenna, Esq., Waltham, St. Lawrence. Violetta was very showy; second, Mr. H. A. Needs, Horsell, Woking. J. Weir Fife (velvety purple) was a very fine variety.

Twenty-four blooms of show varieties: First, Mr. J. Walker, Thame; second, Mr. S. Mortimer; third, Messrs. Keynes, Williams, and Co.

Twelve blooms of show Dahlias: First, Mr. E. West, jun., Frief, Henley; second, Mr. Seale; third, Mr. J. R. Tranter, Henley. Mr. West was also first for twelve blooms in the amateurs' classes.

The first prize (amateurs) for nine varieties, in bunches of three blooms (together with Hobbies' Challenge Cup), was won by Mr. W. Peters, gardener to Vice-Admiral Sir Lewis Beaumont, Baldston, St. Leonards. Phineas (large bright deep red) was perhaps the best bloom; L. McKinna, Esq., Waltham St. Lawrence, Berks, was second; third, Mr. W. G. Rouse, gardener to F. C. Greville-Smith, Esq., Hounslow.

Six blooms of Cactus varieties (amateurs): First, Mr. W. Lockyer, the Lodge Gardens, New Barnet. Mrs. D. B. Crane (white) was excellent; second, the Rev. S. Spencer Pearce, Combe Vicarage, Woodstock.

Twelve Cactus blooms (amateurs): First, Mr. H. A. Needs, Horsell, with some fine flowers, Etna (mauve with a tinge of buff) being beautiful; second, Mr. G. Davidson, Thornton Heath.

Six blooms of one Cactus variety: First, Messrs. Stredwick and Son, with J. B. Riding, a very beautiful lot.

Three vases of Cactus Dahlias: First, Mr. Seale; second, Mr. H. A. Needs.

One of the most effective vases in the show was that shown by Mr. E. Mawley, an orange-red variety with some sprays of a dark bronze-leaved shrub. Mr. Needs won the first prize in this class, however, with a vase of a light coloured variety. Mr. A. Taylor, East Finchley, had the best vase of singles.

Six varieties of Pompons in bunches: First, Mr. H. Brown, Luton. Phoebe, orange-red; Nerissa, rich rose; and

* *Lancet*, April 25, 1891, page 960; *Pharmaceutical Journal*, May 2, 1891, page 981.

Darkest of All were of the best. Second, Mr. Pagram, Weybridge; third, Mr. W. Peters.

Twelve varieties of Pompons in bunches: First, Mr. Charles Turner, Slough, with a lovely lot. Edina, rich bright yellow; Fabio, orange-red; Queen of Whites, and Montagne Wolten, crimson, were of the best. Second, Mr. Seale; third, Messrs. Burrell, Cambridge.

Twelve varieties of singles in bunches: First, Messrs. Cheal and Sons, Crawley. Wm. Parrott, scarlet and white; Snowdrop, white, yellow centre; and Miss Morland, deep red, were very beautiful. Second, Mr. Seale, Sevenoaks.

Six varieties of singles in bunches: First, Mr. E. West, jun., Frieth, Henley. Formosa, rich red, and Fascination, lilac and yellow, were very attractive. Second, Mr. E. Mawley. Miss Roberts, rich yellow, was very fine.

NON-COMPETITIVE EXHIBITS.

Messrs. R. H. Spooner and Sons, Hounslow, exhibited some excellent hardy fruit (gold medal); Messrs. Baker's, Wolverhampton, made a striking display with Dahlias in bewildering variety (gold medal). Messrs. T. S. Ware obtained a gold medal for an exhibit of Dahlias; and so did Hobbies, Limited, Dereham, Norfolk, both being excellent. Messrs. Burrell and Co., Cambridge, were awarded a gold medal for a splendid lot of Gladioli; Mr. West, Brentwood, for Dahlias; and Messrs. Cannell and Sons, Swanley, for Dahlias. Mr. Gwillim, New Eltham, showed tuberous Begonia blooms (gold medal); Mr. E. F. Such, Maidenhead, sent hardy flowers (silver-gilt medal); and Mr. Williams, Ealing, showed table decorations.

NEW DAHLIAS.—CACTUS VARIETIES.

Crepuscule.—A pretty buff and yellow flower, the latter colour more pronounced at the centre. From Messrs. Burrell and Co., Cambridge.

Mont Blanc.—White, good form; a very full flower. From Mr. Walker, Thame.

Antelope.—Buff, lemon-yellow prevailing towards the centre.

Fairy.—A white variety, with thin quilled petals, cream in the centre.

J. B. Riding.—Orange-red, with yellow centre. These three were from Messrs. Stredwick and Son, St. Leonards.

Cockatoo.—Lemon-yellow, fading to white at the edges; a beautiful flower. From Messrs. Keynes, Williams, and Co., Salisbury.

Harbour Lights.—A rather small pale yellow flower of good form. From Hobbies, Limited, Dereham.

POMPON VARIETIES.

Wilfred.—Deep lilac-rose.

Edina.—Rich bright yellow; very beautiful. Both from Mr. C. Turner, Slough.

Little Mary.—Very dark red. From Mr. Seale, Sevenoaks.

SINGLE VARIETY.

Mikado.—A striking variety, with red centre and yellow outer petals.

SHOW VARIETY.

Mrs. Hobbs.—A good white sort. From Mr. T. Hobbs, Downend, Bristol.

Other varieties that obtained certificates of merit, in addition to those described above, were Cactus varieties W. E. Dickson, Crayfish (Shoemith), Alexander (Mortimer), Helen Stephens (Hobbies, Limited), and Pompon Cactus Purple Gem (Walker).

ROYAL HORTICULTURAL SOCIETY.

THE meeting in the new hall last Tuesday was exceptionally interesting. In addition to the fortnightly exhibition of the Royal Horticultural Society, the National Rose Society held their first autumn Rose show, particulars of which are given elsewhere. Hardy flowers, as Dahlias, Asters, Begonias, Phloxes, Lilies, Sunflowers, &c., were largely shown; there were several new Orchids, new fruits, and flowers, as well as numerous groups of fruit trees and fruits and Orchids.

ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch (chairman), Baron Sir Henry Schroder, Bart., Messrs. James O'Brien, de B. Crawshaw, H. M. Pollett, A. A. McBean, J. Wilson Potter, W. H. Young, W. Boxall, H. A. Tracy, G. F. Moore, F. W. Ashton, W. A. Binney, Thomas Bond, R. G. Thwaites, Jeremiah Colman, Francis Wellesley, Walter Cobb, H. Little, F. J. Thorne, J. Charlesworth, and H. Ballantine.

Messrs. Sander and Sons, St. Albans, exhibited some showy Orchids in their group. *Zygopetalum dayanum*, with creamy white sepals and petals tinged with crimson, and *Cattleya calumnata* (intermedia × Acklandiae), light rose sepals and petals spotted with crimson and rich purple lip, were striking plants. *Lelia Pacuvia*, *Cattleya Maroni*, *Miltonia bleuana*, *Cypripedium insigne* (yellow), *C. Miss Annie Measures*, *C. Hayetti*, and *C. Prince Humbert* (mastersianum × niveum) were other good things included. Silver Flora medal.

Cattleya intermedio-gigas, raised from seed sown June 26, 1901, was shown by Jeremiah Colman, Esq., Gatton Park, Reigate (gardener, Mr. Bound).

H. S. Goodson, Esq., 85, West Hill, Putney, S. W. (gardener, Mr. G. E. Day), sent a group of Orchids that was bright with *Cattleyas*, *Laelio-Cattleyas*, *Lycastes*, *Oncidiums*, &c. The white *Lycaste Skinneri* was very beautiful, and so was the variety *delicata*. *Cypripediums* were well and numerous represented. Silver Banksian medal.

The Hon. Walter Rothschild, Tring Park, Tring (gardener, Mr. Dye), sent a small group of *Masdevallias* that included some most interesting species. The rare *Angraecum infundibulare* was in this exhibit, and obtained a cultural commendation. *Cattleya aurea* was finely shown, and so were several *Laelio-Cattleyas*. *Angraecum rothschildianum*, which obtained an award of merit, is described under new Orchids. Silver Banksian medal.

The showy group from Messrs. Hugh Low and Co., Enfield, contained *Cattleya Minucia*, *C. speciosissima striata*, *C. bicolor*, *C. dowiana*, *C. gaskelliana*, *Odontoglossum grande*, *Oncidium varicosum*, *Gendrobium Phalenopsis*, and *D.*

formosum gignstem, all of which helped to make a very bright display. Vote of thanks.

In the group shown by Messrs. James Veitch and Sons, Limited, Chelsea, were many good hybrid *Laelias*, *Cattleyas*, and *Laelio-Cattleyas*. *L.-C. diglyano-gigas*, *L.-C. Nyssa*, *L.-C. callistoglossa ignescens*, *L.-C. bletchleyensis*, *L.-C. Herminone*, *L.-C. wellisiana*, *L.-C. Zephyra*, *Laelia Mrs. Gatrix*, *L. splendens*, *L. Pacuvia*, *Cattleya Casca*, and *C. pittriana* were all handsome flowers of beautiful shades of colour. Silver Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, showed some beautiful flowers in their group. One was given a first-class certificate, and two received awards of merit. But, besides these, this exhibit was full of good things, e.g., *Cattleya Iris aureo-marginata* (*C. bicolor* × *C. aurea*), *C. Iria*, *Brasso-Cattleya Warnerii-diglyana*, *L.-C. haroldiana* (sepals and petals deep rose and yellow, lip purple), and *L.-C. haroldiana var. aurifera* (with sulphur-yellow sepals and petals and rich purple lip). *Odontoglossum grande* was very good; so, too, was *Cypripedium Charlesworthii*. *Brasso-Cattleya M. Charles Maron* is a handsome flower of remarkable size, mauve, except for the yellow throat. Those flowers that were certificated are described under "New Orchids." Silver-gilt Flora medal.

Mr. James Cypher, Cheltenham, exhibited several plants of *Burlingtonia caudata*, bearing racemes of small white flowers, with a blotch of yellow on the lip. Cultural commendation. Vote of thanks.

Cattleya Lady Ingram Westfield variety, most delightfully accented, with blush sepals and petals, purple lip, and rich yellow throat (first-class certificate, 1902), was shown by F. Wellesley, Esq., Westfield, Woking.

NEW ORCHIDS.

Odontoglossum crispum zanthotes Charlesworth's variety.—A very beautiful flower, white, and fairly heavily spotted with amber-yellow on the sepals and less so on the petals. The lip is long, with frilled edges, and is white with amber blotches, while that part beneath the column is a lighter shade of yellow. The form of the flower is perfect. From Messrs. Charlesworth and Co., Heaton, Bradford. First-class certificate.

Cattleya Iris var. Prince of Piedmont.—*Cattleya bicolor* and *C. aurea* are the parents of this striking hybrid, whose flower is large, with greenish brown sepals and petals and rich crimson lip, minutely dotted with white. The lip shows finely against the dark sepals and petals. From Messrs. Charlesworth and Co., Bradford. Award of merit.

Cattleya Iris aurifera.—A very handsome flower with broad rich greenish yellow sepals and petals and purple lip. The parents are *C. bicolor* and *C. aurea*. From Messrs. Charlesworth and Co., Heaton, Bradford. Award of merit.

Angraecum rothschildianum.—An attractive small-flowered Angreecium. The blooms, which have white sepals and petals tinged with green, and a rich green lip with broad white margin, are produced on a short raceme. The plant exhibited carried a raceme about 6 inches long, bearing four flowers. From the Hon. Walter Rothschild, Tring Park. Award of merit.

Laelio-Cattleya eximia Sander's var.—A large and very handsome flower with lilac-rose sepals and petals, slightly drooping, and broadly expanded rich purple lip with deeper purple veins; the throat is a lighter shade of purple with white veining. The parents were *Cattleya Warneri* and *Lelia purpurata*. From Messrs. Sander and Sons. Award of merit.

Laelio-Cattleya Constance Wigan.—A very pretty flower of medium size. The sepals and petals are ochre yellow, the lip cream suffused with purple. The throat is yellow with purplish lines. This hybrid resulted from the intercrossing of *Lelia xanthina* and *Cattleya rex*. From Sir Frederick Wigan, Bart. (Orchid grower, Mr. Young). Award of merit.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. H. Somers Rivers, A. H. Pearson, W. Poupard, George Wythes, J. Jaques, W. H. Divers, G. Norman, G. Reynolds, F. Q. Lene, P. C. M. Veitch, E. Beckett, William Fyfe, George Kelf, Alex. Dean, William Pope, James H. Veitch, Owen Thomas, Henry Parr, H. Markham, S. Mortimer, and J. Cheal.

From Lord Aldenham's gardens at Elstree (gardener, Mr. E. Beckett) there was shown a very fine collection of vegetables, set up in a most attractive fashion. At the back were heads of Cauliflower, Onions, Globe Artichokes, Savoy, &c., embedded in mounds of Parsley, and Parsley formed the groundwork to the whole exhibit, which included *Solanum esculentum* (Egg Plant), Potato Yeoman (white, splashed with purple), Tomato Yecroft Exhibition, Tomato Golden Nugget, Tomato Peach Blow, Carter's Onions Record and Ailsa Craig, Tomato Up-to-Date (very fine), as well as the finest specimens one could wish to see of Leeks, Celery, Vegetable Marrows, Runner Beans, Beet, Tomatoes, Potatoes in great variety, and other vegetables. It was a splendid display of vegetables, that denoted cultural excellence and attractive arrangement. Gold medal.

Messrs. Barr and Sons, King Street, Covent Garden, showed a collection of Kale and Cabbage. Of Kales there were *Exquisite*, *Dwarf Purple*, *Improved Hearting*, *Barr's Paragon*, and *Asparagus Kale*, and of Cabbages we noted *Barr's Little Queen*, *Barr's Best of All*, *Autumn Exhibition*, and *Very Dwarf Savoy*.

Mr. W. H. Divers, head gardener to the Duke of Rutland, Belvoir Castle, Grantham, exhibited an interesting collection of Plums in numerous varieties, chiefly from wall trees. Among the best dishes were *Archduke*, *Golden Transparent*, *Mazum Bonur*, *Diamond*, *Reine Claude de Bayay*, *Nectarine Plum* (orchard tree), *Rivers' Late Orange*, as well as several sorts of Damsons. Silver Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited some pot Vines of the varieties *Gros Maroc*, *Madresfield Court*, *Buckland Sweetwater*, *Alicante*, *Black Hamburgh*, and *Foster's Seedling* that were bearing splendidly. All the canes were struck from "eyes" early in 1903. Silver Knightian medal.

Messrs. J. Peed and Sons, West Norwood, were awarded a silver Knightian medal for an excellent display of Apples and Pears. Good size and rich colour were shown by most of the varieties exhibited, which contributed to make a very satisfactory display.

Messrs. Harrison and Sons, Leicester, exhibited a collection of Tomatoes, for which they were awarded a bronze Banksian medal.

There were several small exhibits of Tomatoes, Melons, Apples, &c., but the only awards made were a cultural commendation for Potato Eldorado to Mr. Charles Blick, Hayes, Kent, and a similar award for Celery Aldenham Pink Perfection to Mr. E. Beckett, Aldenham, Elstree.

NEW FRUITS.

Apple the Rev. W. Wilks.—Peasgood's Nonsuch and Ribston Pippin are the parents of this new Apple, which is large and handsome. The colour is pale yellow or greenish yellow, faintly speckled on the sunny side with red. It is more conical in shape than *Peasgood's Nonsuch*. From Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

Crab Veitch's Scarlet.—This is the result of a cross between the Red Siberian Crab and Apple King of the Pippins. The fruit is of medium size and rich crimson colouring. From Messrs. James Veitch. Award of merit.

Strawberry Eythrope Perpetual.—This is a perpetual fruiting variety obtained by crossing St. Antoine de Padoue with a Pine-flavoured Strawberry. The fruits are larger than those of St. Antoine, and, while being of good flavour, are freely produced at this time of year. From Miss Alice de Rothschild, Eythrope. Award of merit.

Crab Frettingham's Victoria.—An ornamental Crab of moderate size, and bright scarlet-red colouring. From Mr. W. H. Frettingham, Beeston Nurseries, Notts. Award of merit.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. H. B. May, George Nicholson, James Walker, E. Molyneux, G. Reuthe, J. W. Barr, Charles E. Pearson, R. Harper Pearson, William Howe, C. E. Fielder, Charles Dixon, Charles Jeffries, R. W. Wallace, H. J. Cutbush, William Cutbush, W. J. James, J. Jennings, Charles Blick, Charles T. Drury, R. Dean, J. Green, J. F. McLeod, C. J. Saiter, and the Rev. F. Page Roberts.

Hardy autumn flowers were well shown, and several leading growers staged large collections. That from Mr. M. Pritchard, Christchurch, Hants, included masses of *Aster amellus*, *A. acris*, and others, in company with *Phygelium capensis*, *Tiger Lilies*, *Rudbeckia kevigata* (very fine), handsome trails of *Tropaeolum speciosum*, rich in colour and of verdant growth. Many kinds of *Kniphofias* were shown in a group. *K. corallina*, *K. Macowani*, and others arranged amid their grassy lawns, were very striking. *Solidago Buckleyi*, a very dwarf plant, is quite good. *Phloxes* and *Pyrethrums* were also represented. Silver Banksian medal.

Messrs. Barr and Sons, Covent Garden, contributed *Kniphofias*, *Japan Anemones*, *Sternbergia lutea*, and *Cyclamen neapolitanum* in boxes, *Asters* of the *Amellus* and *acris* sections, *Gaillardias*, *Origanum hybridum*, a good plant with rosy-coloured flowers, *Colchicums* in variety, *Sagittaria japonica plena*, *Gladioli*, *Tigridia grandiflora alba*, and many more. *Grasses* and *Eulias* were also freely employed in the arrangement. Silver Banksian medal.

Mr. H. B. May, Edmooton, showed *Bouvardias* and *Ferns*, together with *Roses*.

Messrs. Cannell and Sons, Swanley, staged a magnificent lot of Cactus Dahlias, the flowers and not less the excellent manner of arrangement commanding attention. The good arrangement was much enhanced by a rather free use of sprays of *Kochia scoparia*. We cannot pretend to give a list of sorts, but of recent ones we select *Sweet Nell*, *rose-pink*, *white centre*; *Ibis*, *orange-scarlet*; *Mrs. J. Mace*, *delicate pink*; and *Fred Cobold*, *crimson*. Of large decorative sorts, *Souv. de G. Douzon*, *crimson flowers 9 inches across*; *Beauty of Kent*, *maroon*, *white tips*; *Mme. Van den Dael*, *a huge pink*; and *Perle de la Tête d'Or*, *a pure white kind*, were very fine. Silver-gilt Banksian medal.

Another fine lot of Dahlias was from Messrs. W. Cutbush and Sons, Highgate, who arranged stands of this flower with the best effect. We noted *Miss Grace Cook*, *deep rose pink*; *Cornucopia*, *orange-scarlet*; *Sailor Prince*, *crimson velvet*; *Florence Stredwick*, *white*; *Mabel Needs*, *dazzling crimson* with finely fluted forelets; *Britannia*, *buff*; *Felix Calvert*, *orange-buff*; and *H. F. Robertson*, *a fine self yellow* and a novelty of 1904. Silver Flora medal.

Another fine lot of Dahlias was that from Hobbies, Limited, Dereham, and here again the excellence of the flowers and the arrangement call for special note. We take *Florence Stredwick*, *white*; *Conrad*, *orange*; *Minnie West*, *white and cream*; *Charm*, *a very remarkable flower* in which pale orange mingles with scarlet, with buff on the reverse and white tips; *Heleo Stephens*, *a pretty yellow* and a perfect flower; *Effective*, *one of the best garden Cactus forma*; and *Harbour Lights*, *a unique flower* with pale orange ground, lightened with shadings of mahogany, and tipped a deeper hue. Silver Flora medal.

Dahlias, too, were in fine form from Mr. J. T. West, Brentwood, and here we noted Cactus with Pompons in rich and varied array. Of the Pompons we take *Little Bugler*, *deep rose*; *Darkest of All*; *Drop*, *lilac and white*; *Sunshine*; and *Ideal*, *yellow*. Some capital blooms of the show kinds were also staged on boards. Silver Flora medal.

The *Roses* from Messrs. George Jackman, Woking, were a very pretty lot, a large collection being staged. *Papa Gontier* was very charming, while many of the single blooms set in tubes were also of fine quality.

Messrs. Wells and Co., Redhill, Surrey, contributed a good lot of early *Chrysanthemums*, among which were *Roi des Blancs*, *The Champion*, *a rich golden yellow*; *Nellie*, *yellow*; *Orange Pet*, and *Gertie*, *orange*. Large blooms of *Mme. Von André*, *soft yellow*, and the *Hon. Mrs. Ackland*, *golden yellow*, were also in this group.

Mr. J. Walker, Thame, Oxon, had a few Cactus Dahlias in variety.

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BULB FARMING IN IRELAND.

“WE may safely assert that no finer or better bulbs of Narcissus, Tulip, Snowdrop, Crocus, Iris, or even of *Gladiolus* and Holland's own speciality, the Hyacinth, are produced anywhere than the best of those grown on Irish soil.” So wrote an expert in the *Irish Times* some months ago. Such a testimony as this to the suitability of Ireland as a bulb-growing country is convincing, and, moreover, practical evidence in support of this statement is not wanting. For some years past bulbs have been grown in several districts, and the production has been so satisfactory as to justify its extension. We are not sufficiently optimistic to believe that Ireland either can or will ever become a second Holland as regards bulb culture, for all districts are not suitable for the purpose. “Holland in Ireland” is now a familiar term, but its familiarity has to some extent given rise to erroneous impressions concerning Ireland as a bulb-producing country. Messrs. Hogg and Robertson aptly summarise matters thus: “There are undoubtedly isolated spots in Ireland where bulb growing can be made a successful industry; but on the other hand there is much too great a tendency to generalise on the subject and to describe Ireland as a sort of bulb-growing Eldorado.” So far as we know bulb growing to any extent in Ireland is carried on by Messrs. Hogg and Robertson at their farms at Rush, County Dublin; Mr. W. Baylor Hartland at Ard Cairn, Cork; Miss Currey at Lismore, County Waterford; and Messrs. Alex. Dickson and Sons, Newtownards, County Down. Although the number of growers is so small, the results obtained by them would seem to justify bulb culture on a larger scale. Needless to say, it will never be possible to grow enough bulbs in Ireland to make us independent of Dutch-grown supplies, but that is no reason why the industry should not be encouraged to develop as long as it can be developed profitably. It could not fail to increase the value of the land and bring prosperity to the inhabitants. Even on Messrs. Hogg and Robertson's farm of some 30 acres, between eighty and 100 men are employed at good wages, and it is the same on the other farms mentioned. Congenial and profitable labour tends to increase the self-respect and promote the contentment of the working man, and so bulb farming in Ireland, if carried to its

limits, might ameliorate to some extent the conditions of life and labour there.

To get suitable land it has to be taken in patches of about one to three acres each. The essentials to successful bulb culture are subsoil moisture and a mild and genial spring; these may be said to be ideal both for the development of the bulb and the flower. Writing in *THE GARDEN* some time ago about the Rush bulb farm, a correspondent in Ireland stated: “Though I have seen Tulips in Holland and in England, I never saw them happier than upon this wind-swept shore. The soil is mainly sand, which has for ages been manured with seaweed from the adjacent shore. It is deep and easily worked in nearly all weathers, and is supplied with moisture from below in much the same way as are the bulb and other gardens of the Dutch and Belgians. This sunny strip of land is said to have the lowest rainfall in Ireland, for which the subterranean moisture makes amends. I never, even in Holland, saw foliage so clean, strong, and healthy or flowers so fresh and splendid in form and colour. Now that the fact is accomplished, one wonders why bulb culture was not tried here long ago.” Messrs. Hogg and Robertson grow a variety of bulbs, *e.g.*, Daffodils, Tulips, Irises, Crocuses, and Anemones, all of which thrive well in the cool, moist, sandy soil. On the bulb farm near Cork Mr. Hartland grows chiefly choice May-flowering Tulips and Daffodils, while in County Waterford Miss Currey restricts her enterprise to Daffodils, and at Newtownards Tulips and Daffodils are the chief bulbs grown. Many beautiful Daffodils and Tulips have been raised by Mr. Hartland, who has long cultivated bulbs at Ard Cairn. Bulb culture in Ireland has not spread with such rapidity as one would naturally have predicted, considering how successful it has proved. Although its growth has been slow, it has not been arrested, and now that a sure foundation is formed continued progress is probable, and we may hope, before many years are over, that an industry of national importance will be built up.

While writing of the Irish bulb farms, we may appropriately add a word or two about the Alderborough Anemones which have graced many exhibitions during the last two or three years, and have delighted all who have seen them by their rich and brilliant colouring. They are grown in the nurseries at Geashill, King's County, by Messrs. Reamsbottom and Co., who have done much to popularise these useful flowers and disseminate information concerning them, and at the same time have

demonstrated what very fine Anemones can be produced in Ireland.

There are districts in England, too, quite suitable for the production of good bulbs. In Lincolnshire they are largely grown, and in Surrey; a few years ago they were, and probably still are, grown in the Royal Gardens, Kew. If the possibilities of the British Isles as bulb-producing countries were fully developed we might at least considerably lessen the imports of Dutch-grown bulbs, and so, while keeping money in the country, use it with advantage to both masters and men.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 4.—Royal Horticultural Society's Fruit Show in New Hall (three days).

October 4.—Horticultural Club Dinner, 6 p.m., Hotel Windsor, Sir George Watt on “Indian Primulas.”

October 5.—National Chrysanthemum Society's Show at Crystal Palace (two days).

October 12.—Royal Botanic Society's Show.

October 12.—United Horticultural Benefit and Provident Society's Annual Dinner, Mr. W. A. Bilney in the chair, 6.30 p.m., Holborn Restaurant.

October 18.—Royal Horticultural Society, Meeting of Committees, 12 noon.

October 25.—Croydon Chrysanthemum Society's Show (two days).

October 27.—Exmouth Chrysanthemum Show.

November 1.—Bournemouth Chrysanthemum Show (two days); Brighton Chrysanthemum Show (two days); Royal Horticultural Society.

November 2.—National Chrysanthemum Society's Show at Crystal Palace (three days); Southampton Royal Horticultural Society's Show (two days); Highgate Chrysanthemum Show (three days); Lowestoft Chrysanthemum Show (two days); Portsmouth Chrysanthemum Show (three days).

November 3.—Weybridge Chrysanthemum Show; Colchester Chrysanthemum Show; Forest Gate Chrysanthemum Show (three days).

November 4.—Windsor and Eton Chrysanthemum Show; Battersea, Clapham, and Wandsworth Chrysanthemum Show (two days); Hinckley Chrysanthemum Show (two days).

November 5.—Batley and District Chrysanthemum Show; Loughborough Chrysanthemum Show; Penarth Chrysanthemum Show; North Lonsdale Chrysanthemum Show.

November 8.—Ipswich and East of England Horticultural Society's Show at Ipswich (two days); Dulwich Chrysanthemum Show (two days); Sevenoaks Chrysanthemum Show (two days); Southend Chrysanthemum Show (two days); Stoke Newington Chrysanthemum Show (two days).

November 16.—Liverpool Horticultural Association Chrysanthemum and Fruit Show (two days).

British Gardeners' Association.—

At a meeting of the committee of this association held on the 23rd ult. it was decided to send delegates of the committee to address public meetings of gardeners in some of the large towns

and centres, and to take immediate steps for the formation of local branches of the association. It was also decided to print at once a certificate of membership and list of rules to be forwarded to all accepted candidates, and that annual subscriptions paid this year will be counted as for next year, before which time the association will not be in proper working order. Up to the present over £160 has been received as subscriptions and donations, and about £70 more has been promised. All who are interested should carefully read the prospectus accepted by the great meeting held in Essex Hall in June last, for it is clear that most of the criticisms and suggestions made through the Press and by correspondence have been made in ignorance of the real character and aims of the association. Copies of the prospectus and forms of application for membership may be had from the secretary, W. Watson, Kew Road, Kew, Surrey.

Narcissus bicolor grandee.—I send a photograph of *Narcissus grandee*, which is one of the most beautiful of the bicolor section. The flowers are delicate in colour, the trumpet, as the illustration suggests, being large and the colour pale lemon, which is in agreeable contrast to the pure white perianth. It is nearly a fortnight later than that well known bicolor *Narcissus N. Horsfieldi*.—D.

Lælio-Cattleya elegans.—On page 233 we give an illustration of the beautiful *Lælio-Cattleya elegans* hybrids in Mr. R. H. Measre's collection at the Woodlands, Streatham. Several notes have appeared in THE GARDEN about these Orchids, and we are glad to be able to illustrate them.

Nerine ingens.—Mr. Gumbleton writes that his collection of over thirty sorts of *Nerines* is coming into flower, and *N. ingens* is the largest flowered of them all. It is very beautiful at the time of writing (September 22), five good spikes out of a potful of ten bulbs, the increase from one bulb purchased in 1899. It was raised by Max Leichtlin, Baden-Baden.

Hybrid Kniphofia Phœnix.—Mr. Gumbleton also mentions that he has in flower a most distinct and beautiful hybrid *Kniphofia*, also raised by Max Leichtlin, named *Phœnix*; it is the result of a cross between *K. comosa* and *K. Leichtlini*, and shows the character of both parents, but resembles the first named in beginning to expand its flowers in the middle of the spike.

The sale of insecticides.—Mr. G. H. Richards has written to the *Dover Telegraph* with reference to the death of a lady there through taking XL All Liquid Insecticide. Mr. Richards says: "I have little doubt that this lady obtained a quantity of the compound named above as the result of reading a report or reports of the Pharmaceutical Society's prosecutions. The society is continually instituting prosecutions against seedsmen and others for selling poisonous compounds. As a consequence the newspapers by their reports of the proceedings are constantly affording the public information as to the deadly character of preparations which otherwise would be known to comparatively few, and used by them for specific purposes." Mr. Richards goes on to deplore the zeal of the Pharmaceutical Society, and thinks that their efforts in this direction do more harm than good.

Memories of Dean Hole.—The Rev. David R. Williamson writes to us from Kirkmaiden Manse, Wigtonshire, Scotland, as follows: "I had the pleasure of knowing the late Dean of Rochester both personally and by correspondence. Some years ago he sent me two fine specimens of the first Rose that had the honour of being associated with his name, viz., Reynolds Hole, raised by Messrs. Paul and Son of Cheshunt, with the following characteristic and memorable description: 'My namesake is affiliated to the Duke of Edinburgh. It is uncertain, coy, and hard to please, yet exquisitely lovely when in good humour.' In another of his letters he says of other flowers: 'I place the Lily next to the Rose, as you do. Ah! that lovely *Tropeolum (speciosum)* which will not thrive in England, but clothes your Scottish cottages with such abundant glory! I plant and plant, and receive feeble encouragement—and then, farewell!'

He thus characteristically acknowledged the dedication of one of my poems: 'I am thankful, and all who read your beautiful poem on "The Ministration of Flowers" will share in my gratitude, that I brought to you the small Luciferous match which has kindled such a pure and bright flame. Your verses remind me of Longfellow's on the same subject, and are quite worthy to be associated with them.'

Seacombe cottage gardens.—For many years past Mr. Charles Birchall, who owns the property known as the Cottages, Wheatland Lane, Seacombe, has encouraged his tenants to beautify their gardens by awarding annually prizes for the best kept gardens, window-boxes, and homes in connexion with these cottages. This summer's awards were distributed recently in the Wesleyan Mission Room, Oakdale, in the presence of a large gathering of the tenants and their friends.

Horticulture in Italy.—This seems to be on the increase, and there is no doubt that the great international show recently held in Turin will do much to encourage the growing interest. We have just received a specimen number of a new monthly gardening paper, entitled *La Villa ed il Giardino*, edited by Signor N. Severi of Rome. Although unpretentious in style, the new undertaking gives promise of being a useful periodical to the Italian amateur, of whom there is an ever-widening circle.—A. H. P.

Gladioli among Pœonies.—Where *Pœonies* are grown in masses in beds or borders, and that is how they should be planted after the flowering season is over, the beds are bare and devoid of brightness. If *Gladioli* of various forms, such as *Gandavensis*, *Nanceanus*, *Lemoinei*, and *Childsii*, are planted they will produce throughout August and September a capital effect, and make an otherwise dull part of the garden quite bright, and be useful also in providing flowers for cutting.—E. M.

Tritoma glaucescens.—Among *Flame* flowers, and there are many sorts, none is more effective than *T. glaucescens*. The habit of growth is moderately vigorous, flower-stems are freely produced, while the colour is not only striking in the distance, but upon close examination it is pleasing, the upper part rich red and the lower or expanded flowers deep orange-yellow.—E. M.

Polygonum equisetiforme at Kew. This interesting plant is now flowering freely at the foot of a wall with a warm southern aspect at Kew. It is somewhat rare in gardens, although its light and elegant habit, as well as its period of flowering, should recommend it for cultivation to those who are able to provide the kind of position it requires. It is a native of parts of Southern Europe and of some of the islands in the Mediterranean, where it is usually found in the gravelly beds of torrents. As its specific name implies, it has the appearance of some of the *Equisetums* before it comes into flower, and is almost devoid of leaves. It forms a bushy, very freely branched plant about 2 feet high, and commences to produce its myriads of small white flowers early in September. They are borne in long racemes, imparting to the plant a graceful feathery appearance. With sweet-scented flowers this plant presents a striking contrast to the better-known members of this genus, most of which are remarkable for their robust growth and spreading habit.—W. I.

Aberdeen Botanic Garden.—During the four years which have elapsed since Miss Cruickshank kindly provided the means of laying out the Botanic Garden at Chanony, Old Aberdeen, steady progress has been made in establishing a representative collection of plants for botanical study. The funds available do not permit of any attempt at making the garden one of great attraction to the general public, but Professor Trail has, with the assistance of Mr. George Nicholson, who acted as adviser in the laying out of the garden, made this small botanic garden one of great service to students of botany. A prominent feature is a capital collection of wild plants, comprising the greater number which are natives of the north of Scotland. This is of great service to many interested in the botany of the district, giving excellent opportunities of verifying

specimens they may collect, and of considerable interest even to the casual visitor. There is no accommodation available for housing sub-tropical or tropical plants, the two greenhouses being mainly used for propagation.

Hedychium gardnerianum in the open.—When this *Hedychium* was first introduced into this country it was thought to require a high temperature, one writer going so far as to recommend its culture in the moist stove. As a matter of fact it is almost hardy, being a native of the temperate regions of the Himalayas. Over seventy years ago Wallich, the great Indian botanist, described it as "the queen of the genus," which it still may be considered. It throws up annual growths, clothed with large Canna-like leaves 18 inches in length and 6 inches in breadth, to a height of 5 feet, crowned by flower-spikes 1 foot in length of pale yellow blossoms, not unlike *Orchids*, which are deliciously scented. The other day, when in Southern Cornwall, I saw a large bed filled with this *Hedychium*, and was informed that in September fully fifty flower-spikes would be borne simultaneously by the plants. It is no uncommon thing to find it flowering well in the early autumn in the south-west, but as it delights in water during its period of growth it is often a difficult matter to keep it adequately supplied in dry weather when permanently planted in the open. In districts where the winters are too severe for it to be allowed to remain in the open it may be lifted, potted, and kept under glass until the early summer, and then replanted in the open. It also succeeds well in pots plunged beneath the water level.—S. W. F.

Pentstemon Newbury Gem.—It is gratifying to find that this *Pentstemon* is again beginning to attract notice after being in obscurity for a good many years. Really hardy *Pentstemons* of its class are too scarce to neglect this; it can be cultivated for years as an ordinary border plant without the trouble of annual propagation. Not that it has the same features as the great *Gloxinia*-like flowers of the modern hybrid *Pentstemons*, for the blooms are narrow tubed and do not open at the mouth like those of the hybrids. Its hardness and its fine scarlet colour are, however, great merits. It was well shown in a group of hardy flowers exhibited at the Royal Caledonian Society's show in Edinburgh on the 14th and 15th ult. by Mr. John Forbes of Hawick, but it is a plant I have known for many years. In appearance the flowers remind one much of those of *Phygelius capensis*. The origin of *Pentstemon Newbury Gem* seems difficult to trace, and I have looked in vain through a number of books without finding any record of its origin. The name, however, of *Newbury Gem* may be a means of its being traced, and I for one would be glad if anyone could throw any light upon the source of this pretty *Pentstemon*.—S. ARNOTT.

The Pomegranate (Punica Granatum).—I always greatly admire the stately standard plants of the *Pomegranate* growing in tubs which one sees on the terrace of *Gunnery House* during the summer. They grow freely, producing many handsome crimson blossoms. It is said the *Pomegranate* was first cultivated in England during the reign of Henry VIII., and it is mentioned among the trees that fruited in the Orange house of Charles I., so it is an old inhabitant of English gardens. It is said to thrive out of doors in the warm counties of England and Ireland, but the climate is not sufficiently favourable to bring its fruit to maturity; and even when cultivated under glass in these counties, though the fruit may mature, it does not attain to that delicacy of flavour equal to the produce of Spain, Italy, and other warm climates. It is as a terrace plant grown in tubs or boxes that I wish to commend it, and it is by no means difficult of management, needing protection in a greenhouse during winter, and being suitably top-dressed during early summer and kept well watered. The *Myrtle*, *Aloysia citriodora* (sweet-scented Verbena), the *Orange*, &c., make excellent companions to it, and set off a broad terrace to the best advantage. Some bush-trained *Fuchsias* and scented-leaved *Pelargoniums* go well with them.—R. D.

Fuchsia Charming.—For growing in tubs, vases, or large pots, as specimens on the lawn and so on, no variety that I know can excel Charming, the plum-coloured corolla contrasts so well with the red sepals and green foliage. Habit of growth and freedom of flowering are so remarkable that it is difficult to imagine a finer Fuchsia than Charming.—E. M.

Phygelius capensis.—This is a valuable plant for the autumn, for from the end of August until the first frost it continues to bear its spikes of long bright crimson flowers with yellow interiors; indeed, I have picked a perfect spike as late as December. It is practically perfectly hardy, as it has in this country endured a temperature some degrees below zero without being harmed. In severe cold such as this the growth above ground is killed, but it throws up shoots strongly from the roots in the spring. In warmer districts it maintains a shrub-like habit, its growths remaining intact through the winter. It is certainly disappointing in some gardens, and where it refuses to bloom freely it is not worth keeping. Where, however, it proves floriferous it is a handsome addition to our autumn-flowering plants. The other day I saw in the neighbourhood of Chepstow a remarkably fine bush in full flower. It was 4 feet 6 inches in height and 6 feet through, and was bearing forty-seven bloom-spikes, some of these being 9 inches to 1 foot in length. It was introduced from the Cape in 1855.—S. W. F.

Amaryllis Belladonna purpurea major.—Those who admire the Belladonna Lilies, and have so far failed with the type plant, should try the variety *purpurea major*. It is a distinct and very beautiful form, and certainly of more easy culture than the type. The bulbs are as large as the largest Cocoonut, the leaves unusually broad and lustrous, the flowers numerous and borne on stout purplish stems 2 feet or more high, and they resemble the type in shape, but are larger and more richly coloured, the throat lined with rich pink, and not so clearly white as in the old Belladonna. This variety, by the way, cannot be called new, for a large continental grower has grown it for twenty years in the open, and in a far worse climate than this, and a fine display within eight miles of Charing Cross is ample testimony that the plant is a good doer, and that it will flower freely where the ordinary Belladonna fails. One can grow it well in an ordinary border also, provided the situation is warm. Its fragrance is very marked, and one must welcome such a grand variety of an old favourite at its true worth. It is a very distinct plant that I can heartily recommend from personal experience of its merits.—G. B. M.

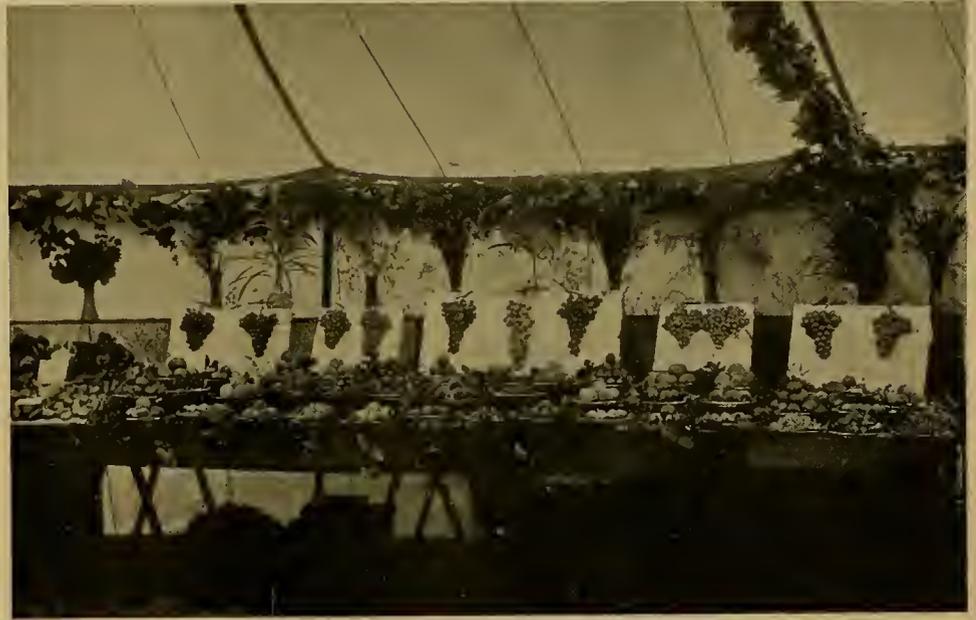
Rudbeckia maxima.—This plant does not succeed in every garden, and growers in the Midlands and other winter-wet districts will experience difficulty in managing it. It is seen at its best at high elevations and in a light gravelly soil. The leaves are very glaucous, and a welcome bit of broad, semi-tropical leafage in the plant border in early summer. The stems grow 6 feet in height, and bear striking flowers of a rich yellow with orange shading, the large black cones showing in splendid contrast. The whole plant has a glaucous hue, and it is very striking when in good health. There are several spurious forms in cultivation, and one or two bad varieties, but the true plant is very handsome. It flowers during August and September, and it is not likely to be seen at its best till well established. A mulch of dry material is necessary in very severe winters, for the plant is just on the borderland of hardness in this climate. In the south this plant should be appreciated, for, in truth, it is a striking object when in flower. Texas claims it as a native.—G. B. M.

Early-flowering Chrysanthemum Carrie.—Although the flowers of this variety cannot compare with those of Horace Martin—the yellow sport of the M^{me}. Marie Masse family—they have a charm of their own. There is room for both of these yellow sorts, their respective shades of colour being quite distinct. The plants have been in flower for several weeks already, and there is the probability of the display being continued for many weeks to come. The smallest pieces put out in the open border in May last have made

pretty dwarf and bushy specimens, and new sheets continue to spring from the base, each one bearing quite a heavy crop of buds. The flowers are seen to advantage when the plant is partially disbudded, their form being better and the individual flowers more attractive. This year the plants are rather less than 2 feet in height.—D. B. CRANE.

New Chrysanthemum R. Pemberton.—Early Chrysanthemums of a clear amaraath colour are quite limited. Not that many of this shade are needed, but we want the best of whatever the colour may be. Last season, at Ryecroft Nursery, this seedling was much admired, and now that the plant is distributed far and wide it is gratifying to hear that it is doing well in places and situations widely diverse. At Tamworth, in June last, an early batch of this variety was quite one of the best things in the whole collection. I have since seen the plant on heavy land at Mr. Jones's new nursery at Keston, Kent, where it is doing remarkably well. In my own collection it is also one of the most promising of the 1904 novelties. The plants should be grown without disbudding, in which case the crop of blossoms is most prolific. The flowers are borne on stout, erect stems, on plants possessing a splendid habit. Height about 3 feet.—D. B. CRANE.

At the Warley cottage show.—The accompanying illustration shows the group of



MISS WILLMOTT'S EXHIBIT OF FRUIT AT THE WARLEY COTTAGE SHOW.

splendidly grown fruit from Miss Willmott's garden. The Grapes and Peaches were particularly worthy of note, and the arrangement was very tasteful.

White Thyme.—If you have a very poor bit of ground which parches so much in the summer sun that most things find existence there impossible try the white Thyme. Fierce heat and intense drought appear to have no effect on its welfare, and in its season it is one mass of pure white flowers. A good-sized specimen is very conspicuous when in bloom. A word of warning is, however, necessary. Never by any chance plant it close to choice alpine, for in my experience it is capable of choking any dwarf habited plants.—J. CORNHILL.

Hybrid forms of Zephyranthes.—Having tried many times unsuccessfully to cross the delightful *Z. carinata* with different species, I was much interested in the note on *Z. Ajax* (page 186). This hybrid (*Ajax*) is, I see, mentioned in the last supplement of the "Dictionary of Gardening" as having been illustrated in "Regel's Gartenflora" in 1899. My principal object in this note is, however, to call attention to a hybrid

described in the early part of the "Dictionary of Gardening" as a cross between *Z. tubispatha* and *Z. carinata*, under the name of *Z. tubispatha hybrida*, of which *Z. spofforthiana* is quoted as a synonym. As this was figured in the *Botanical Register* (1815 to 1847), it must have been obtained many years ago, and is now, I fear, lost to cultivation, at all events I cannot find it mentioned anywhere else, not even in the "Kew Hand List."—T.

Senecio tanguticus.—During a recent visit to Kew I was more than ever impressed with this new Chinese species of *Senecio*, which is certainly one of the most desirable members of this extensive genus. As a foliage plant alone it is most handsome, the erect stems, which reach a height of 3 feet to 5 feet, being clothed with palmately-lobed leaves, the divisions of which are deeply cut. The small yellow starry flowers are borne in large erect pyramidal-shaped panicles, and though individually they are by no means showy, yet in a mass a delightful effect is produced. This *Senecio* is a native of Central China, and is one of the many good things introduced from there by Messrs. Veitch, through their collector, Mr. E. H. Wilson, who sent home seeds from which plants were raised that flowered for the first time at Coombe Wood in the autumn of 1902. It is perfectly hardy. A second species of *Senecio*, but widely dissimilar from the last, has

also flowered beautifully this year. This is *Senecio clivorum*, a native of China and Japan, which, though long known to botanists, was not introduced till 1901, when it was sent home to Messrs. Veitch by their collector. It is a strong growing herbaceous perennial, with bold foliage and rich orange-yellow flowers. It is scarcely suitable for the herbaceous border, but for planting on the margin of a lake or stream there are few, if any, plants more beautiful than this. The leaves are roundish, 1 foot or more across, borne on long petioles, while the much-forked flower-stems bear a wealth of blossoms that remind one of some of the perennial Sunflowers. The individual flower-heads are about 3 inches across, the outer portion consisting of bright orange-yellow, strap-shaped florets, while the central disc is brown.—H. P.

Verbena Afterglow.—This pretty *Verbena* received an award of merit from the floral committee of the Royal Caledonian Horticultural Society at their meeting on the first day of the autumn show of the society. A sport from *Verbena* Miss Willmott, it possesses all the good qualities of the parent, but the colour is a bright and effective rose. It is thus brighter for beds

where a little more colour is desired than is given by the beautiful *Verbena* from which it sported. It was raised in the gardens of the Earl of Haddington at Tynninghame, and was submitted by Mr. R. P. Brotherton for the opinion of the committee, with the result already mentioned. Mr. Brotherton not only showed cut flowers, but plants, so that the committee had ample opportunities of discerning its character.—S. A.

Hardy Fuchsia Caledonia.—This dwarf hardy Fuchsia, which was unanimously awarded a first-class certificate by the Royal Caledonian Horticultural Society's floral committee on the 14th ult., appears to be one of the neatest and most free-flowering of its class. The plants shown came from the nursery of Messrs. Cunningham, Fraser, and Co., Comely Bank Nurseries, Edinburgh, the firm having also a small group in their stand of flowers on exhibition at the show the same day. There was thus an excellent opportunity of seeing the character of the plant, and from what one saw of it there can be no doubt that the committee was justified in the award. The Fuchsia was shown in compact little plants about 1 foot or a little more in height. The little pyramids were laden with small bright flowers. It appears that this Fuchsia was raised at Comely Bank about thirty years ago, but it has not been propagated until lately. It is understood to be a seedling from Riccartoni, but the whole appearance reminds one more of *F. pumila* than of Riccartoni. It is, however, of a better habit than *pumila*, while the corolla is not so dark as in that species. The flowers are also more freely produced. Caledonia grows a little taller than *F. pumila*. When submitted to the committee it was named Profusion, but it was pointed out by one of the members that there was already a Fuchsia of that name, and it was consequently altered to Caledonia, an appropriate name for a plant of its origin, and one that was first shown before the Royal Caledonian Society.—S. ARNOTT.

Liatris graminifolia var. dubia.—There are three *Liatris* generally grown, the commonest of which is *L. spicata*, a short tufted plant that flowers in summer. *L. graminifolia dubia* is a tall variety growing 4 feet to 5 feet high, bearing a fine series of spikes, which commence to flower from the top downwards. The flowering portion of each spike is generally more than a foot in length, and is exceedingly showy, being made up of a multitude of rich, bright purple Throat-like flowers, tightly packed on the stems. It is a vigorous border plant, valuable at this season of the year when so few good plants are at their best. The leaves are very narrow and numerous, and the growths, when a foot or two high, may be likened to a clump of seedling Pine trees, and they have the same delicate green colour. It does not appear to be able to seed under cultivation in this country, and propagation is only possible by dividing the curious, knob-like root-stocks, and by severing the smaller growths which form at the base of each stem. The *Liatris* is a native of sandy tracts of country, but under cultivation it succeeds, treated as liberally as is possible, especially the variety under notice.—G. B. M.

Nertera depressa.—This little plant is now a pretty picture on a shady ledge in the rock garden, its whole surface being thickly studded with bright orange berries. It is almost invariably met with under glass, and I have only seen it in the open in one garden besides my own, that of a Somersetshire vicarage. Here, although said to be a native of New Zealand, it appears perfectly hardy, as it has passed through three winters unprotected without the slightest injury and has increased to quite double its size when first planted out. It is growing on a ledge in front of an upright rock, and shares its quarters, which have a northern exposure, with *Phloxia buxifolia*, *Shortia galacifolia*, and *Oursia coccinea*, the last of which is spreading so rapidly that it will soon have to be reduced. The soil in which it is planted is pure peat and granite sand. The flowers are inconspicuous, being very small, pale green in colour, and borne in the axils of the leaves. These are followed by minute green berries, which gradually swell and begin to show colour early in August, remaining in full beauty for

three months. All who possess a rock garden and are blessed with a mild climate should grow this pretty little plant, which is interesting even when not bearing berries, as its close mat of tiny pale green leaves clinging closely to the ground renders it distinct from all other rock plants.—S. W. FITZHERBERT.

Buddleia variabilis veitchiana.—This is a distinct improvement upon the ordinary *B. variabilis*, the flowers being much richer in colour, which may be described as heliotrope-purple. The shrub appears to make amazing progress, and is probably the quickest grower of any garden shrub or tree. Small bushes of *B. variabilis* put out in the spring of 1903 are now immense bushes, 10 feet in height and as much through. In the spring I was given a tiny plant of the variety *veitchiana*, about 6 inches in height. This was planted out in the garden, and now has shoots 7 feet in length, while it has been flowering freely for the last fortnight. The bloom-racemes are now over 1 foot in length, but I have seen some on larger bushes that exceeded 2 feet in length.—S. W. F.

Calystegia pubescens flore-pleno. This pretty double Bindweed is not such a dangerous plant to introduce into a garden as the majority of its family, since, although it often shifts its position a foot or two, it is not a bad land-grabber; indeed, in cold and damp soils it often proves difficult to establish in the open. Its double, flesh-pink flowers have been very pretty for the last month, the shoots running up a wire trellis in company with a Honeysuckle, they will continue to bloom until the first frost. It makes shoots 6 feet or 7 feet long in a season, and is at home climbing over rough rock-work, old tree roots, or low bushes, so that it is available for a diversity of positions. It was introduced into this country from China in 1844.—S. W. F.

Asparagus subulatus var. gracilis.—This pretty Asparagus is quite new to cultivation. It is a native of the Himalayas, and was introduced by Mr. Sprenger. It is a tall climbing evergreen species, with very small spines, leaves dark green, not prickly. The flowers are borne in racemes, each with twelve to eighteen sweet-scented white flowers with orange-coloured stamens. It is grown all the year round in the open here. For cutting purposes and as a pot plant it is most valuable.—W. MULLER, *Vomero, Naples*.

Clematis Hilarii.—This new introduction of Mr. Charles Sprenger is now flowering for the first time in the well-known garden of Gennaro Casertano, Esq., of San Giorgio Cremano, near Naples, one of the best gardens in the neighbourhood of Naples. It was planted in the spring as a small plant on a pergola, between climbing Roses, *Solanum seafortianum*, *S. jasminoides*, *Mandevilla suaveolens*, *Polygonum baldschuanicum*, and others, and has now reached a height of about 2½ metres, well branched from the base. From the top of the long branches and also from the axils appear the long panicles covered with myriads of bluish white sweet-scented flowers. The leaves are large and dark green. It is one of the finest climbers. I believe that this species would be quite hardy in Britain. It comes from Argentine, so rich in fine flowering plants.—WILLIAM MULLER, *Vomero, Naples*.

Excessive railway charges for fruit.—The extent to which the fruit trade is handicapped by railway charges may be judged from the following: A local grower sent a consignment of Plums to Glasgow, the net weight of the fruit being 23cwt. 2qr. The consignment realised £13 18s. 8d., out of which no less than £6 12s. had to be paid for freight. There was also a charge of 2s. 8d. for receiving and delivering. Is there another industry which could possibly live under such conditions? Deducting the salesman's commission, the actual amount received by the grower for his 23cwt. 2qr. of fruit was £6 9s. 6d.

Hemerocallis Dr. Regel.—Mr. W. E. Gumbleton writes from Belgrove, Queenstown: "I have now in flower a very distinct hybrid *Hemerocallis* named Dr. Regel, unlike any of those known to me in its deep orange shade of colour,

and in having all its three or four flowers in a compact bunch on the top of the flower-spike, and enveloped in a sheath exactly like that of an *Agapanthus*, instead of an open panicle like all the other sorts have; the flowers open quite flat in the sun. It is a very beautiful hybrid."

Aconitum Wilsoni.—This member of the Monk's Hood family is remarkable for its exceedingly glossy leaves, and from the fact that it blooms during September and October when nearly all its relatives are over. After the terminal spike is past its best the secondary ones develop rapidly, and continue the floral display for some time. The introduction, or perhaps I should say reintroduction, of this species we owe to Messrs. Veitch, whose collector, Mr. E. H. Wilson, sent it home from China. It appears, however, to have been figured in the *Botanical Magazine* some years previously as *A. Fischeri*, but there is another plant bearing the same name which in the "Kew Hand List" is referred to as *A. columbianum*. At all events, whatever name may be regarded by botanists as the correct one for the plant known as *A. Wilsoni*, there can be no question that it is a most valuable addition to autumn flowering perennials, and a decided break away from the different tints of yellow which greatly predominate at this season. In colour the flowers of *A. Wilsoni* are of a pleasing shade of violet, while the hood-like portion of the flower is much developed.—H. P.

THE ROSE GARDEN.

WHITE BEDDING ROSES.

HOWEVER much we may value crimson and scarlet Roses for massing, and wish there were more of them, snowy white and creamy white varieties are none the less appreciated. It is astonishing how many Roses, when seen from a short distance, are white in effect, although on close inspection there are subtle charms and tints that are only apparent upon a closer view. Several varieties may be called snow-white, such, for instance, as *Baronne de Maynard*, *The Queen*, *Frau Karl Druschki*, *Katherine Zeimet*, and *Anna M. de Montravel*, these two last being dwarf *Polyantha* Roses. They are all very beautiful, and may be freely planted where pure white flowers are wanted. Then comes the section of flesh-white Roses, headed by the Hon. Edith Gifford, a splendid sort that gains in popularity every year. *White Lady* is magnificent, especially in June, when its huge blossoms are the wonder of all who see them, produced, as they are, upon very dwarf plants. *Augustine Guinoisseau* and *Souvenir du President Carnot* are excellent, the former a white *La France* and very sweet, and the latter a most refined and deep flower, which is not conspicuous upon the plant quite so much as one could desire. *Marjorie* is a little gem, one of the prettiest of this very charming group of hybrids.

Creamy white Roses are really white in effect, more so, of course, in the distance. Peace may be fittingly placed at the head of this group. It is a grand Rose, destined to become one of our best bedding kinds. *Enchantress* is also very good, yielding fine clusters of most beautiful blossom. *Mme. Pernet Ducher*, *Sulphurea*, *Kaiserin Augusta Victoria*, *Yvonne Gravier*, *Mme. Berkeley*, and *Mme. C. P. Strassheim* are each one distinct, yet for all practical purposes alike in the mass. There are many other white Roses, but the above selection seems to me the best. I must not, however, overlook the beautiful varieties known as *White Caroline Testout*. There are three, each one distinct, yet all coming under the category white—*Admiral Dewey*, *Marguerite Guillot*, and *Irene*. Probably it will be granted that *Marguerite Guillot* is the best, but I should advise all who want three good white Roses to plant the lot, for they are worthy of it. P.

ROSE DUCHESS OF MECKLENBURGH.

For a pillar or pergola this Rose well deserves a place. The growth is vigorous, the foliage a deep

green, and its flowers are freely produced, especially during the month of September, when the bulk of rambling Roses are flowerless. The blossoms are semi-double, white, flushed with yellow in the centre. E. M.

ROSE MARQUIS DE SALISBURY.

AMONG autumn-flowering Roses it is difficult to imagine a more suitable variety than this where dwarf growth and a mass of flowers are required. The bright crimson blossoms render it a conspicuous object, even at a distance. E. M.

ROSE LADY BATTERSEA.

PERHAPS the finest plants of this Rose outdoors are to be seen in Lord Battersea's garden at Overstrand, where a bed of fifty of the first raised plants were placed some three years since. I have seen them annually ever since, and must say the growth this year is even better than I have seen it before, while the flowers are very fine. It is a Rose that should be grown everywhere. E. M.

ROSE G. NABONNAND.

FOR September flowering in a mass this is one of the best of Roses. I lately saw it growing in a bed 15 feet in diameter. The plants had made stout, vigorous growth, and were giving a huge crop of soft creamy pink blossoms. Even when fully developed this is a desirable Rose, as it preserves a good form; but it is in the bud state that it is so much appreciated. E. M.

ROSE PRIMULA (DWARF POLYANTHA).

A DAINTIER little Rose I am not acquainted with than the variety Primula, which was raised and distributed by Messrs. Souper and Notting three years ago. The flower is almost single, there being no more than three rows of petals, revealing the golden stamens and wonderful white centre, and contrasting so prettily with the bright China Rose of the upper part of the petals. It is the white eye that is so attractive, and this is still more prominent owing to the brilliant colour of the remainder of the flower. Doubtless the combination of colour and form of flower suggested the name. Being a dwarf grower and free bloomer, Primula will become popular. It is such thoroughly distinct novelties as this that are wanted at the present day. Apparently the possibilities of novelty in the Rose are inexhaustible. What with the many agencies at work in the hybridisation of this beautiful flower, and its own inclination to sport, some remarkable developments may be looked for in the near future. P.

ROSA POLYANTHA NANA.

It would be interesting to ascertain the exact history of the dwarf Polyantha Roses which were put into commerce about ten years ago to be treated as annuals. It is no fable that seedlings will grow into flowering size within the space of three to four months, as it has been done over and over again in this garden. Last year seed was sown under glass on February 10, which showed the first seed leaves on March 13, and flowers opened on June 25, three months and twelve days from the date of germination. One of these planted on a wall continued to flower charmingly throughout the season until November. At the beginning of April this year it was moderately pruned back and was the prettiest little bush imaginable, about 12 inches in height, completely covered with clusters of pale pink single flowers and deeper tinted buds during June and July. The dry hot season after that made it look somewhat rusty and shabby, and it was again well trimmed. The brave little bush is now flowering once more, and is well set with fresh clusters of buds. Few plants could give a better flowering record. As a general rule Rose seeds are slow in germinating. If these little Polyantha Roses were merely of annual duration the quick springing of the seed might be easily accounted for; but, on the contrary, they are true perennials and improve

year by year. They are not all single flowered, as many of the seedlings give double and semi-double forms; but the single are as pretty as any, and all make admirable wall or rock garden bushes. One would be glad to know more of the origin of these useful miniature Roses. Indeed, not one passer-by in a dozen ever recognises them as being Roses at all, the general effect being more like that of Apple blossom. K. L. D.

SOME SUMMER AND AUTUMN - FLOWERING BULBS.

(Continued from page 204.)

BRODIAEA.—This is a large genus, and some of the species are very rare and not yet in cultivation. Many of them are easily procurable, and not being difficult to grow in soil and situations recommended for Bloomeria

and Brevortia, should be tried by all lovers of good things. Perhaps the best and most satisfactory are the magnificent *B. californica*, with flowers from rose to deep purple; *congesta*, blue or violet; *Douglasii*, bright blue; *gracilis*, deep yellow, rather tender; *grandiflora*, violet-purple; *Howelli*, bluish white, and its finer variety *lilacina*, lavender; *ixioides* and *var. erecta*, bright yellow; *laxa* and *l. splendens*, pale to dark blue (Mr. T. Smith's *laxa maxima* is a decided acquisition, being of a fine deep colour, and considerably later than the typical form); *peduncularis*, bluish white to rosy; and the newer *Orcuttii*, *Purdyi*, and *sellowiana*, though with regard

to the last-named I am inclined to think it blooms in spring, not summer.

B. volubilis (or more properly speaking, *Stropholirion californicum*), with long twining scapes and large umbels of rose-coloured flowers, is rather tender, but is well worth trying in a select corner. It flowers in July.

CALOCHORTUS.—This beautiful genus, including the Star Tulips and Mariposa Lilies, is now so well known and appreciated, and so much has been written about its cultivation out of doors, that I do not propose to do more than briefly allude to my own experience with the *venustus* section. I have already written on this head in the pages of THE GARDEN at some length, and a photograph of my group in full flower appeared in the number for August 15, 1903. I have grown them now in the same bed for seven years or more on a warm, thoroughly well-drained border with a decided slope to the south, composed of very light deep soil; they have never been lifted or interfered with in any way, and have seldom

been covered with the frame-light so universally recommended directly after the flowering is over. They have increased by their own seeds, which are left to look after themselves, a slight covering of fine peat and ashes being added each November. New beds should be thoroughly dug and pulverised and the bulbs planted in September. A sloping layer of cinders or brick rubbish below the soil would be an undoubted advantage, even in soil naturally light, for drainage is the key, in my humble opinion, to success, with these charming flowers, as it is indeed with *Ixias*, *Sparaxis*, and a host of other bulbous plants. All the species of this fascinating genus are most desirable, and it is difficult to single out any one as more worthy of a trial than another. My advice to intending growers is to get a grower's catalogue and study the extensive list it contains. The *venustus* section is, perhaps, the easiest to grow, and it contains many exquisite varieties, but special mention may

also be made of *pulchellus*, *clavatus*, and *Purdyi*.

CAMASSIA.—The fine species *C. Cusickii* hardly comes within my province, as it flowers in the spring, but the other members of the genus, *esculenta* and its varieties, *Fraseri* and *Leichtlini*, are all handsome and worth growing. I do not know anything about *C. Engelmanni*, a bright blue species from the Rocky Mountains, but it is well spoken of. Deep, well-drained soil, with a warm aspect, not too much exposed to the sun, suits these fine plants, which are splendid in masses.

COLCHICUM.—The Meadow Saffrons are beautiful and easily grown, blooming in autumn, when

flowers are scarce, but as the scapes come before the leaves and are somewhat weak and "floppy," suffering much in high winds or heavy rains, it is desirable to have them in grassy corners of the lawn or wild garden, or to carpet the border where they are growing with some dwarf plant such as a small *Veronica* or *Sedum*. This forms an agreeable setting for the flowers and helps to support and preserve them. Moist sandy loam is the best soil for *Colchicums*. There is not a great range of colour in the flowers, which vary from pure white to rosy purple, but all the forms are pretty and welcome. *Sibthorpii*, with its fine chequered flowers, is perhaps the most desirable, though the commoner *Parkinsoni* runs it very close. *Bornmulleri* and *giganteum* are magnificent new species; *speciosum* is an older one, but remarkably fine; the double white form of the well known *autumnale* is a scarce beauty which should be in every collection. I have a very good large form from Mr. T. Smith, of Newry, called *persicum*.



NARCISSUS GRANDEEF. (Much reduced. See page 218.)

EUCOMIS.—Every one who has a spare piece of warm sunny border, preferably under a wall or on the sheltered side of rockwork, would do well to try one or more species of the small genus *Eucomis*, the best of which are probably bicolor and punctata. Their graceful foliage and stout flower-spikes are very effective, and the conspicuous blossoms of punctata, appearing from July to September, are sweetly scented.

FRITILLARIA.—The *Fritillaries* form a most interesting genus to which sufficient attention has not been given by amateur gardeners, but they have not yet perhaps been satisfactorily worked out by the botanists, and it is a most difficult matter to approach them scientifically with our present knowledge. Most of them flower in the spring, but a good few are in bloom in the summer months, such as *camischatcensis*, *Moggridgei*, *pyrenaica*, &c. Curious and interesting rather than pretty, *Fritillaries* are specially suitable for planting in grass in half-shady spots, or in nooks in the border more or less screened from the direct rays of the sun. As a rule they prefer a light rich soil, thoroughly well drained; the fastidious and handsome *recurva* has done fairly well with me in nearly pure sand, in full sunshine, having flowered for the last three years consecutively.

GALTONIA.—A small genus of handsome South African bulbs, well known to all through the popularity of *G. candicans* (*Hyacinthus candicans*, or Cape Hyacinth). The other species, *princeps*, *clavatus*, and a hybrid between the two, *princeps-clavatus*, are less ornamental and probably not worth growing. *Galtonias* like an open sunny spot and light rich soil, well drained, in which they will flourish and give a splendid effect for years, with the assistance of a good autumn mulch of old manure. The bulbs should be planted fairly close together and about 6 inches deep.

HYACINTHUS.—As the lovely *H. amethystinus* flowers in May and June I think I am entitled to include it in my list without laying myself open to the charge of poaching in the spring preserves. It is an indispensable flower; a mass of the ordinary form, with a few of the white variety here and there, in clumps or singly, dotted about it, will delight both eye and soul, especially as it is in full beauty long after the glory of the *Scillas* and *Chionodoxas* is past. The bulbs are not expensive nowadays, and the white form is only slightly dearer than the blue.

LILIUM.—What am I to say about the Lilies? As I have already trespassed grievously on the space available in this number of *THE GARDEN*, I think I had better say nothing at all. One cannot touch lightly on this most beautiful genus, it would be an insult to such a divinity; and, moreover, I am living in the hope that I may be allowed in a future number to say something about the behaviour of Lilies, especially with regard to the season of 1904. So I will pass on to the far less showy but interesting

LLOYDIA, a rare and pretty genus, comprising but two species, one of which, *L. serotina*, was originally discovered on the rocky ledges of Snowdon, in North Wales, though it has probably been long since exterminated by greedy collectors in that locality. It is found in the Alps, also in Central and Northern Asia and in North America. The other species is Himalayan, and I have never seen it under cultivation. *L. serotina* bears its neat flowers on short, slender stems in June; these are white or yellow, veined with green. In partial shade and sandy loam it may be used with advantage, and it is a pity it is so seldom met with.

MERENDERA.—The best known autumn-flowering species are *M. Bulbocodium* (also

called *Bulbocodium autumnale*) and *M. persica* or *Aitchisoni*, both with very pretty, rosy lilac flowers, which come before the leaves. Near allies of the *Colchicums*, they require the same treatment, and look all the better if planted in a carpet of some low-growing perennial, which retains its foliage throughout the winter. *Bulbocodium vernum*, though it occasionally flowers as early as January, hardly comes within the limits of this list.

MILLA.—For the solitary species left by the botanists in this genus, the lovely *M. biflora*, a warm sunny corner, thoroughly well-drained, and a good light sandy loam are essential. The flowers appear in August and continue for weeks, even months; they are so pretty that all should make an effort to find a suitable spot for a clump of these desirable bulbs.

NOTHOSCORDUM.—This genus contains a good number of species, but only one, *N. fragrans* (*Allium fragrans*) is of any importance. This fine plant, with umbels of fragrant white flowers, barred externally with lilac, is quite hardy, and flourishes in good light soil in sunny borders or in back portions of the rockery; it blooms in the summer months.

ORNITHOGALUM.—Like the *Alliums*, these flowers are, unfortunately, endowed with an Onion perfume, the reverse of divine, and many growers object to their presence in the garden on that account. The magnificent *O. arabicum* is one of the worst offenders, but it is so handsome and effective that it can hardly be dispensed with, and, after all, the "bouquet" is local and not overpowering. It is a great pity it is not quite hardy, but in rich well-drained soil, well protected by ashes or dry leaves in winter, it does not do badly in the south of England, and should certainly be attempted. Other good summer species are *pyramidale* and *pyrenaicum*, which will grow in partial shade, or in the wild garden among shrubs, *narbonense*, and *latifolium*, but *arabicum* is the best of all, with its large creamy white flowers, which have yellow anthers and a conspicuous black ovary in the centre.

SCILLA.—Among the numerous hardy and exquisite *Scillas* we have only one that flowers in autumn, before its leaves appear, viz., *S. autumnalis*. It is quite worth growing, independently of its abnormal time of blooming, for the reddish purple flowers are very delicate and attractive, while the variety, or form, *japonica*, with lovely rose-coloured flowers, is a decided acquisition.

TULIPA.—We have not yet arrived at an autumn-flowering Tulip, all the numerous species in cultivation, with one exception, blooming in the spring. This exception is the handsome *T. Sprengeri*, an Armenian species, which does not come to perfection till the end of June in ordinary seasons, and thus becomes a most desirable addition to our bulb list. It is rather a tall grower, with brilliant scarlet flowers, and has done well with me on a warm border, producing fertile seed freely.

Yalding, Kent.

S. G. R.

SOME GOOD NEW DAHLIAS.

MRS. J. G. RANDALL (Single).—This new single variety received a certificate of merit at the Alexandra Palace show on the 7th inst. The flowers are of good form. It is quite distinct from any existing variety in regard to colour, this being a lovely deep shade of rose, flaked and striped deep crimson, with a bright yellow disc. The plant is free flowering, and should prove an acquisition to this section. This new sort was exhibited by Messrs. J. Cheal and Sons, Crawley, which firm has done so much to

make the single-flowered sorts popular. If the flowers are gathered long before they are fully expanded they continue to develop subsequently, and last much longer as a consequence.

Effective (Cactus).—Among the large number of new sorts, in which there is a tendency to encourage those developing huge flowers, it is pleasing to meet with one like the above. This variety has blooms of the most refined and dainty kind. They are just large enough for many forms of decoration, and surely for exhibition too. They are of good form, the florets being regularly and evenly disposed. The colour is a soft amber, slightly tinted rose, and with a rose centre. The flower is aptly named, as it is most effective. The plant has a splendid habit, and develops its flowers freely on erect footstalks, and for this reason has a special value in the garden. An excellent display of this sort was recently made by Messrs. J. Cheal and Sons of Crawley at one of the great London shows.

Stromboli (Single).—This is another fine seedling of this year that received a certificate of merit at the Alexandra Palace show on the 7th inst. The colour may be described as rich velvety maroon, tinged with crimson, and each petal is tipped with white, thus making a distinctly pretty fancy type of the single flower. As a plant for garden embellishment or for use when cut this new sort from Messrs. J. Cheal and Sons should be heartily welcomed.

Ideal (Pompon).—There is a tendency in many instances to get the Pompon sorts too large. The variety under notice was charmingly staged by Mr. J. T. West at the Alexandra Palace show held recently. The flowers are, as the name implies, ideal in shape. A few, however, were just a trifle too large. The colour is a bright yellow. For exhibition or garden use this 1905 novelty should have a good future.

D. B. C.

NOTES FROM SWANSWICK.

THIS summer I had the pleasure of seeing *Edraianthus dalmaticus*, grown from seed, blooming on a rockery here. From the packet of seed there were only three plants, one of which was from a stray seed that had found its way into a box of *Gentiana acaulis*, whose own belonging never came up, though quite a variety of odds and ends, singularly attracted, appeared in it, including *Oenothera rosea* and the one *Edraianthus* aforesaid. I kept the third plant in a pot, and it has not flowered, nor does it look nearly so well as the one planted out in a crevice between two limestone, in very sandy and gritty (made) soil. If this were not rather a difficult subject to raise and flower, I do not suppose anyone would trouble about it; the long semi-prostrate stalk with the close whorl of Harebell-shaped darkish purple flowers at top has nothing specially fascinating in its appearance, and it lasts but a very few days in beauty. A large patch, however, would be a different thing. My favourite among the less common dwarf *Campanulas* is *C. barbata*. This is so unlike all the others; the pale blue bells are solid in texture, interestingly hairy within, and of a peculiarly pretty shade of colour, while the neat round tufts of prostrate leaves are quite distinct. It is a tidy, compact plant, and does excellently well here in a level nook at the foot of the shady rockery, in rather heavy loam.

Close by it is a thriving tuft of *Soldanella alpina*, which was suddenly discovered to be afflicted with a non-paying guest in the person of a tuft of *Grass of Parnassus*, firmly wedged in its very middle. For some time it had escaped noticed, the leaves of the two plants not being very dissimilar at a little distance. At this time of year anything, poked in anywhere, usually grows, and a division, necessarily

somewhat drastic, of the allies, resulted in successful transplantation.

Dorothy Perkins, acclaimed by ourselves and every visitor to the garden as the prettiest of all climbing, pillar, or arch roses, has not flowered well this year, and the Crimson Ramblers, which are in a place a little shaded, have not flowered at all, while one in sunshine only had two or three bunches of bloom. I fancy this has been the case elsewhere, too, as I have not seen anything like the usual display about in other gardens. *Aglaia*, however, planted in the same situation and aspect, bloomed very profusely. *Billiard et Barré*, against a wall in a rather dry border, flowered, and is flowering, well, and made growth, but the blossoms are whitish with a pink tinge, and quite out of character, though of full size and good shape.

The best things now, of course, are the Michaelmas Daisies. The three Perrys—Perry's Pink, Perry's Favourite (*Amellus*), and Elsie Perry—are all good. Elsie and the Favourite precede Pink, but they overlap. I have raised a pink seedling several shades lighter than Perry's Pink, but very distinctly pure pink, which I think very pretty. It was the only pink one out of a large packet of seed that germinated most freely and gave astonishing variety, and a number of dwarfs from 1 foot to 18 inches, that make delightful rockery bushes.

Symphyandra Hofmanni, like a rather more bushy Canterbury Bell, the ivory flowers of which have had their frilled mouths cut off with scissors, flowered profusely on the shady rockery. *S. pendula*, the perennial, has not flowered yet, though this is its second season, and it looks quite healthy. I suspect *S. Hofmanni* of being likely to become as great a plague as *Digitalis ferruginea*, one plant of which last year has covered this rockery thickly all over with lusty seedlings, so I have pulled most of it up. *S. pendula* is much smaller and neater in growth, and hangs prettily over the edges of stones. *Dianthus superbus* has filled the whole garden with delicious scent, but now looks very untidy on a sunny rockery. It is worth having anywhere in a good mass for the sake of its spicy sweetness, that goes on for many weeks. *Convolvulus althæoides*, such a very pretty thing on account of its unique contrast or rather harmony, of deep pink flowers and silver leaves, has established itself too thoroughly on this same rockery, and sends up myriads of young plants, having an underground connexion often of surprising length with the parent. In time it will take the whole rockery, and the time will not be so long either, but it carefully marches upwards. Spray Millet, or what looks exactly like it, though shorter in spray, has ripened, and that exquisite colour-gem among birds, Gould's grassfinch, or the gouldianfinch, of which I have an example as a pet, likes it very much, preferring it, indeed, to the well-seasoned sprays from the bird shop, upon which he is usually dependent.

There never, surely, was such a season for Groundsel. Our garden is thick with it, and as fast as one crop is hoed off, another appears. Some seedling Radishes, ineffectually netted by the man-of-all-work, who has the usual cottager's craze for home-saved seed, attracted many birds, chiefly greenfinches, but including some goldfinches, very rare in this garden as a rule. The green linnet seems to be a very incautious bird, clumsy at escape, for one of our shipperkes, who has a love for the sport of bird-hunting, has here killed a number of them, to the no small advantage of a large family of young ferrets with which we are at present blessed. This dog is so sharp that she can and did catch

an old thrush on the wing in the shrubberies, but the goldies are luckily much too nippy for her.

The only hardy *Chrysanthemums* that have lived through the winter, and, what is much worse, the spring, in the open, are the splendid Goacher's Crimson and Robbie Burns. Both are flowering well, but my three years' experience of this soil teaches me that it will be necessary yearly to plant all the sorts I want to be sure of in April. The hardy yellow, *Carrié*, was in flower in the middle of August. I have seen nothing but praise given to this *Chrysanthemum*, but I think its extreme earliness a fault rather than a virtue, and an unpleasant reminder of autumn. I have now no Dahlias but Pompons, as last year and the year before wind wrecked the Cactus and show varieties. The Pompons go down under days of fine misty rain, though they stand heavy downpours, but bear wind with equanimity. I got all the pink varieties I could hunt up, having a particular weakness for that colour, and many are extremely pleasing, but the jewel among all is *Elizabeth*, a small deeply quilled flower of a most beautiful and unique pure cherry colour. Its only fault is that its very stiff stalks are a trifle short at the beginning of the season, but later they lengthen.

BULBS IN THE MIXED BORDER.

BULBS have of late years become so popular for bedding purposes and for planting in grass swards that their value as border plants is in some danger of being overlooked.

When used judiciously bulbs are a great acquisition to the ordinary mixed border. It must be admitted, however, that the free use of bulbs in such borders has its drawbacks, but, taking everything into consideration, the advantages undoubtedly far outweigh the disadvantages incurred. The beauty of a flower border where bulbs—I employ the term in its broadest sense—are freely used is maintained for a much longer period and the brilliancy and variety of colour at command are far greater than when only the so-called herbaceous and florist's plants are planted. The two greatest drawbacks with such a border are, first, the difficulty of digging and manuring it; and, secondly, the impossibility of rearranging it to any great extent without disturbing the border at a season—in August or early September—when many of the ordinary flowering plants are at their best. Such a radical overhaul is, however, only needed at rare intervals, and even then can be carried out without necessarily spoiling the whole appearance of the border. For several years past two of the most attractive borders in the gardens here have been those in which all kinds of bulbs have been freely planted among the commoner perennial, biennial, and annual flowering plants, and the result has in every way been highly satisfactory.

In planting such a border it is essential that the bulbs, and other plants flowering at the same period, should be distributed and arranged more or less equally throughout the border, so that one portion shall not be bright and another part dull and unattractive. Irregular and light, but not extensive, grouping of bulbs is advisable, as the best colour effects are thus obtained. Crown Imperials, *Polyanthus Narcissi*, florist's Tulips, *Muscari* and *Chionodoxas*, mixed in with *Aubrietias*, *Double Arabis*, *Polyanthus*, *Primroses*, and *Daisies*, and here and there a few *Wallflowers*, are the earliest flowering plants in such a border,

most of them commencing to make a show by the end of March. Following these come the *May Tulips*, *Scillas*, *Fritillarias*, and *Ornithogalums*. By the time the other non-bulbous spring-flowering plants are waning, *Violas*, *Pinks*, various species of *Campanulas*, and *Erigerons* are beginning to take their places. *Spanish and English Iris*, the *Colvillei* type of *Gladiolus* and the *Camassias* keep up a succession of bloom well into July and August, when the beauty of the border is upheld by *Montbretias*, *Lilies*, *Galtonias*, and the late-flowering *Gladioli*, and carried on by them until frost puts an end to outside flowers.

During the early summer and autumn herbaceous plants such as *Delphiniums*, *Sunflowers*, *Phloxes*, and *Anemones*, biennials such as the *Chimney Campanula* and *Foxgloves*, hardy and half-hardy annuals such as *Poppies*, *Godetias*, *Schizanthus*, *Nemesias*, *Alonsoas*, *Stocks*, *Asters*, and such like all help to make the mixed border interesting and attractive. The annuals are planted in such places as where the early bulbs have died down, and where the spring-flowering plants like the *Arabis*, *Polyanthus*, *Primroses*, and *Aubrietias* have been removed to their summer quarters in the nursery ground. These latter, with the *Gladioli* and *Iris*, are the only perennials which are interfered with. All the other plants, bulbous or otherwise, are not disturbed from year to year, except when they show signs of overcrowding or the need of better soil.

W. W. PETTIGREW.

Superintendent of Parks, Cardiff.

NOTES ON HARDY PLANTS.

FUNKIA GRANDIFLORA.

FROM the point of view of flowers, this is the finest of all the Plantain Lilies. A large clump is now bearing over thirty bloom-scapes. The flowers are over 5 inches in length, and twenty or more are carried on the same scape, though only three or four are expanded at the same time. They exhale a delicious fragrance, and on this account are of great value for indoor decoration. It should be planted in a warm and sunny spot, or will probably fail to flower freely, a defect which has led to its cultivation being discontinued in some gardens. In shady situations, such as many of the other Plantain Lilies flourish in, it can hardly be expected to bloom well. Where it fails to bloom satisfactorily in the open it is well worth growing in a pot under glass for the sake of its scented flowers. It is also known as *F. subcordata* and *F. japonica*.

S. W. F.

ANTIRRHINUM GLUTINOSUM.

THIS modest little Snapdragon has given a great deal of pleasure in my garden during late summer, partly because it was unknown until sent by a friend, partly because it has fallen so well into its place on the top of the coign of a retaining wall, where it has run over the stone and is overflowing the edge in the happiest fashion. Still full of flower it seems likely to continue so for some time to come. *A. glutinosum* is very unlike a Snapdragon in habit, having long trailing stems, thick set with small alternate and velvet-smooth leaves, grey with the silky hairs which cover both upper and under surfaces. One cream-white flower with pencilled red lines on tube and upper lip is produced from each leaf-axil, and these look as if growing in pairs, as in the larger-flowering opposite-leaved *A. Asarina*, but this is not the case. The whole plant is somewhat sticky to the touch, as its name would imply, though not more so than in *A. Asarina*. Both of these trailing species are rather tender, *A. glutinosum* being Spanish and the other Italian, but they can be

treated with great success as half-hardy annuals. The Italian species is not new, as I remember it doing very well as a perennial rock plant on the dry chalk soil of a former garden. Both are valuable for walls or rock crevices. The foliage alone of *A. Asarina* makes it worth growing, for its strongly-nerved leaves with crenated edges have somewhat the character of Ground Ivy but for their silky coat and paler green, and the whole plant is charming, as it fits itself into the niches or joints of stonework. It does not, however, flower so freely, though its flowers are larger, nor spread so fast as *A. glutinosum*, which seems to be a plant of more recent introduction. K. L. D.

SOLLYA HETEROPHYLLA.

THE Australian Bluebell Creeper is often met with in the south-west, where it bears its drooping, Gentian blue blossoms for some months, and makes a pretty picture against a south wall, the numberless brightly-coloured flowers forming an azure mist. It is generally held to be very tender, but as I have seen it in vigorous health on high ground in the neighbourhood of Chepstow, where it received but the scantiest winter protection, it must be fairly hardy, at least as much so as the Myrtles, which flourish in the same locality. In cold districts it makes an excellent greenhouse climber. It rarely attains a greater height than 10 feet, but forms spreading masses on the walls. It seeds freely, the pods hanging on the plants through the winter. Young plants are readily raised from this seed, and will show flower in a year from seed-sowing. *Sollya parviflora* or *linearis*, formerly considered a distinct species, is now classed as a variety of *S. heterophylla*. S. W. FITZHERBERT.

THE DANDELION-LEAVED EVENING PRIMROSE.

(*ENOOTHERA TARAXACIFOLIA*.)

THIS is one of the finest of that section of Evening Primroses characterised by a low, trailing growth and large blossoms of a white-pinkish or yellow colour, expanding fullest towards evening. The name *E. taraxacifolia* was at one time applied to *E. acaulis*, a much inferior plant with smaller flowers, but, possibly, only a variety of the other. Both are quite hardy and perennial in light soils, but they often perish during winter on those that are wet and heavy. *E. taraxacifolia* has a fine effect where planted in a rich, deep soil in the rock garden, where its trailing stems can droop over the ledge of a block of stone. The flowers vary from 2½ inches to 3½ inches across, and are pure white when first opened, but afterwards gradually change to a delicate pink. Other beautiful kinds are *E. marginata*, *E. missouriensis*, also called *E. macrocarpa*, all of which require treating similarly to *E. taraxacifolia*. *E. speciosa*, which is a very handsome plant, grows from 1 foot to 1½ feet in height, and bears an abundance of large and delicate white blossoms. This plant is best grown in a border of rich light soil, where, if not disturbed, it will soon spread into a large tuft. *E. taraxacifolia* is a Chilean species, but the others mentioned are natives of North America. G.

DIANTHUS DELTOIDES.

THIS charming little maiden Pink is a low-growing perennial, well adapted for the rock garden, as it will flourish in the poorest of soils. It, however, grows more luxuriantly with richer treatment, producing a long succession of its bright pink flowers. It is readily increased by means of cuttings, and self-sown

seedlings spring up freely round about plants that have flowered and ripened seeds. The plant shown in the illustration is a self-sown one, most happily situated on a rocky ledge, where it is seen to the best advantage. Common in some parts of this country, this species is usually found in rather dry gravelly pastures, where the grass does not get coarse enough to smother it. A suitable companion to the above is the variety *glauca*, with white flowers, which is found growing on Arthur's Seat near Edinburgh. W. IRVING.

SILPHIUM LACINIATUM.

THIS is a representative of a group of American composites not generally found under cultivation, but it is a stately plant and a capital border subject. The leaves are *Centaurea*-like and finely pinnate, the stems somewhat gaunt, yet giving a distinct character to the plant. Several flowers are borne on each stem, and these occur at irregular intervals, but all face the west; even if produced on the eastern side of the stem they curve round. They are 3 inches to 4 inches across and are lemon yellow in colour, the disc being made up of lemon yellow florets, which drop away quickly, till on the third and fourth day of opening but few are left in the extreme centre. The calyx envelope is very stout and a trifle viscid. Its habit of facing westward must influence those who would plant this species, and one could suggest having a good clump in the herbaceous border with a background of dark greenery, so that its pretty leafage and really beautiful flowers might be displayed to good advantage. The flowers resemble *Helianthus* somewhat, but they are infinitely more refined. It flowers in August and September, and may grow 5 feet to 7 feet high. Many call it the "compass" plant. G. B. M.

DESMODIUM PENDULIFLORUM.

THIS is a remarkably handsome plant when well grown, resembling a dwarf and free *Laburnum* in its habit. It is a sub-shrubby plant, with arching and pendulous branches 4 feet to 5 feet long, and it appears to thrive well at the foot of a south wall, and it is seen at its best when raised above the

general level. A position on a raised bank or retaining wall, provided the site is warm, will suit it well. Its flowers are borne *Laburnum*-fashion in pendulous racemes, depending from every leaf-axil, and they are coloured a bright rosy purple, and generally thirty to fifty are contained in each raceme. These vary in length from 6 inches to 10 inches, and are often triple-branched. Very severe winters may cripple the plant for a time, but I have never known one to be killed outright if the position was a dry one. Grown in a border amidst other plants much of its beauty is lost. It is like the *Fuchsia*, requiring to be isolated and raised aloft to be fully appreciated. It flowers in August, September, and October. There need be no fear of drought harming the plant, for, like most *Leguminosæ*, its roots descend 3 feet deep. G. B. M.

WILD CROCUSES.

WHEN one considers the delightful effect produced by a large mass of these charming flowers, as seen in many a meadow in spring, it seems strange that they are not more freely used for naturalising in similar places. It is true that of late years they have been planted extensively in many public parks and gardens, chiefly forms of *C. vernus* and *C. aureus*. There are, however, several other species, both autumn and spring-flowering, that might with advantage be used for making charming pictures towards the end of September and beginning of October and in the early spring. There are some species which flower during the winter, thus connecting the autumn and spring-blooming plants.

These, however, do not develop their full beauty in the open ground, but require the protection of a frame, and thus are rarely met with except in botanic gardens, or in the gardens of enthusiasts. A few of the best for naturalising are, beginning with the



THE MAIDEN PINK (*DIANTHUS DELTOIDES*) SELF SOWN ON THE ROCK GARDEN AT KEW.

autumn-flowering species, and taking them in alphabetical order :

AUTUMN-FLOWERING CROCUSES.

C. asturicus.—A pretty species from the mountain of that name in Spain, with flowers ranging in colour from blue to lilac and dark purple.

C. hadriaticus.—A native of the Ionian Islands and Albania, with pure white flowers in some forms, while others are pencilled at the base with reddish lines, or richly suffused with violet.

C. iridiflorus.—Also known by the name of *C. byzantinus*. This is a very handsome plant, the flowers somewhat resembling those of an Iris, owing to the marked difference in size between the outer and inner segments. A native of Eastern Europe, the flowers are large and rich purple in colour.

C. longiflorus.—From South Italy, a charming species, with light purple flowers, yellow at the throat.

C. medius.—A beautiful species from the Riviera and the adjacent Maritime Alps. The flowers are bright purple, veined at the base, and the much-branched stigma is bright scarlet.

C. nudiflorus.—This pretty Pyrenean species is naturalised in the meadows near Nottingham, and in other Midland counties. It has large bluish purple flowers, and when established it spreads by means of stolon-like shoots which form independent corms.

C. pulchellus.—This species, with lavender-blue flowers, comes from Eastern Europe, where it grows in heathy thickets. It is very free-flowering, and an established clump produces a great number of flowers for a considerable time.

C. speciosus.—One, if not the handsomest, of the autumn-flowering species, this is also one of the best for growing in grass or for massing in borders or in the rock garden. It is a native of Asia Minor and adjoining countries, and has long been in cultivation. The flowers are of a rich bluish purple suffused with darker veins. Like most of the others there is more than one form of this species.

C. zonatus.—From the mountains of Cilicia, with rosy lilac flowers, having a yellow centre and an orange zone. This is a beautiful Crocus.

There are many more autumn-flowering species worthy of cultivation, but the above may be considered the best. The following is a selection of the best

SPRING-FLOWERING KINDS.

C. aureus.—A native of Eastern Europe and Western Asia Minor, with rich golden yellow flowers. There are several varieties of this with milky white, sulphur colour, and sulphur with crimson-brown markings on the outside of the segments.

C. biflorus.—The Scotch Crocus is a species of wide distribution, from Italy to Asia Minor. It embraces a number of distinct forms varying in colour and markings. In the typical plant the segments are white or pale lavender, feathered on the outer segments with purple markings. Other forms are a uniform pale lavender with orange base, *C. b. estriatus* and *C. b. Weldenii*, with either white flowers or white externally freckled with purple. There are also many others too numerous to mention here.

C. chrysanthus.—This is a very early-flowering species like the above, and is a native of Asia Minor. It varies very much in colour and in the markings on the outer segments. The chief varieties are *C. c. var. albidus*, *C. c. fusco-tinctus*, and *C. c. fusco-lineatus*.

C. Imperati.—From the neighbourhood of Naples, one of the first in flower, and very beautiful with lilac flowers and darker featherings; very variable.

C. Sieberi is bright purple, and comes from Greece. It is very attractive and very free flowering.

C. suaveolens.—A native of the country around Rome, has violet and fawn flowers with purple markings.

C. susianus, the Cloth of Gold Crocus, is a well-known plant with golden yellow flowers, striped or suffused with brown, and is very showy. It is a native of the Crimea, &c.

C. vernus.—The spring Crocus is a native of many parts of Europe, and is also naturalised in several parts of this country. The colour forms of this species are very numerous, ranging from pure white to deep purple.

C. versicolor.—Also with a great range of colouring from purple to white, the outer segments being variously marked and feathered. It is a native of Southern France and Italy.

The species enumerated above represent only a part of the genus Crocus, but with these one may have a succession of bloom from September to March.

W. IRVING.

THE FLOWER GARDEN.

ANNUAL AND BIENNIAL HAIRBELLS.

CAMPANULAS comprise annual, biennial, and perennial species—an interesting and beautiful family, adapted for all kinds of situations, and differing greatly in expression. The little *C. fragilis*, that spreads its growth over the rockwork, is different from the gay and gaudy Canterbury Bells. A rock garden well planted with the Bellflowers makes a mass of colour, which is obtained at little expense.

A very distinct section of the genus is that comprising the annual and biennial kinds. Annual flowers, we are afraid, have had a poor time this season, and where the rainfall has been slight since the spring the seedlings are making slow progress. We were looking at an important collection of Campanulas recently, and the annual kinds had scarcely moved; but they must not be judged from their behaviour in an unusually hot season, when everything is hanging its head in the bright sunshine. The most important annual species is *C. macrostyla*, which ranks amongst the finest of hardy annual flowers. It is remarkably distinct, possessing a character peculiarly its own and unlike all other members of the family. The habit of growth is rigid, and it grows about 1 foot high, whilst it assumes a candelabrum-like form, the much-branched, wiry stems embellished with very small leaves. One wants to see a good mass of it, and this applies to annuals in general. They are effective when in bold clumps or colonies. The distinguishing feature of this species is the style, hence the origin of the name, and it is remarkably developed, standing out erect from the flower, which is quite flat, salver-shaped, and the leaves and stem are ciliate. In the month of July this fine annual Campanula opens its handsome flowers, which are veined with blue on a white ground and shaded with purple. There is a variety named *rose-flora*, which, as suggested by the name, has rose-coloured flowers. One does not often see this Campanula in gardens, but it is worth growing for its distinct flowers. Another good annual one is *C. Loreyi* and its variety *alba*, which are pretty kinds, easily grown, and last almost throughout the season. *C. Loreyi*, sometimes spelt *Lorei*, has been long in English gardens. It is synonymous with *C. ramosissima*, and was introduced from Mount Baldi, in North Italy, in 1824. The plant grows about 1 foot in height, and has small shining leaves. The deep blue flowers are freely produced, and make a good show when one has a good mass of plants, as previously advised. This annual is not very common

in gardens, but it is worth a place in the border, especially where there are other kinds. There are varieties of *C. Loreyi*, and the chief is named *alba*, the flowers of which are greyish white, and also *C. l. fl.-pl.*, besides a form called *stricta*, in allusion to the upright character of growth, the flowers light blue in colour. These are the best of the group, but a few others may be named. *C. Lœfflingii* is quite a dwarf species from Spain, where it colours the cornfields with its flowers, which are funnel-shaped, produced in panicles, and of a blue colour. It is useful for the rockery, but is very dwarf, only a few inches in height. A good patch of it is showy, and the seed is easily raised. We may add *C. strigosa* and others, but the most important have been described.

Many Campanulas may be treated as biennials, but the chief biennial kind is *C. Medium*, a favourite old plant that is superb in masses, owing to the varied and splendid colours. It is the most useful of the family, showy either in the border or in pots, and there is much diversity of character in the several varieties. Cross-fertilisation has done much, and amongst the large number of varieties are some very charming forms. We much prefer the ordinary singles to the duplex and double types. There are many good strains as they are called, and a mixed packet of seed will give many fine things. The plants bloom with the greatest freedom, each shoot heavily weighted with the stout bells, and when in perfection are perfect mounds of blossom. One need not describe such a lovely subject, which should be in every good garden, grown in masses to get effect from the flowers. Another point is that the plants even when in bloom may be lifted and potted for the greenhouse, conservatory, or to form groups in the house or at the exhibition. The calycanthea varieties are those in which the calyx has by selection assumed a very broad saucer-like character, and it is this type that gets coarse when too large, wanting in the refinement and beauty of the ordinary forms. The plants, it must not be forgotten, should be put into bold groups in large gardens, and the effect is finer if the colours are kept distinct, not mixed, these being very poor in comparison. Get a good blue, rose, purple, white, and try grouping them in distinct colonies, and we think that the result will be pleasing. There are plenty to select from, the colours varying greatly, and the seed is easily raised. Keep the fading flowers picked off to promote continuous blooming. Get the young seedlings in position before autumn is far advanced. A succession of seedlings should be obtained, otherwise there will be a blank in the display.

C. persicifolia, *C. pyramidalis* and their respective varieties, besides many others, especially the trailing kinds, may be mentioned; but these have been often noted in THE GARDEN. Of biennials, the Canterbury Bells hold first place, and the interesting annual kinds add to the beauty of the garden in the summer months.

BEDDING VIOLAS AT CAMBERWELL.

To see these hardy, free-blooming plants in gardens generally is common enough, but to find them presenting a wealth of bloom in a densely-populated district such as South London is certainly not an everyday experience. There is at Camberwell an area of some fourteen acres that originally formed part of the famous Myatt's Market-field Gardens. The land and a large area surrounding it came into the possession of a Mr. Minett, and in laying it out as a huge building estate he generously gave these fourteen acres to the local authority to be a public park for all time. That area is under the control of that able administrative body the London County Council, and its present superintendent is Mr. Frank Wright. He has made liberal use of Violas, and even now, at the fag-end of the season, great quantities of them can be seen blooming profusely. There are edgings of William Neil, Ardwell Gem, and others from 15 inches to 18 inches broad, almost masses of bloom, and very charming they are. The chief white, very pure and good, is *Niphetos*; Bridegroom, a delicately tinted mauve; Duchess of Fife, edged blue; Walter Welch, clear yellow;

Dulwich Park, bright yellow with small dark eye; J. B. Riding, reddish mauve; Blue King, True Blue, and several others. None are left outdoors for stock during the winter. Propagation by cuttings in frames commences at once, and these, as well-rooted plants, are put out largely in the spring.

It is interesting to see here what fine plants seedling Marvel of Peru in variety grow to be, also to observe the free use made of that fine old plant *Ageratum mexicanum*. There is also a singularly free and beautiful double-fringed

that a crumb of bread cannot lie on the gravel walk five minutes undiscovered, small pests flourish to an extent that makes it almost hopeless to grow some kinds of flowers which earwigs and slugs specially affect, while there are no trees so riddled with caterpillars and infested with blight as those of sparrow-ridden suburbs. In the country the sparrow becomes more merged among the general bird-life of a garden, and it is only in cases of conspicuous wrong-doing, such as tearing to pieces Crocuses

weed-seeds birds may do more harm than good by reducing the stress of the struggle for existence between the weeds themselves. If you watch a skilled gardener thinning out his seedlings, you are apt—if you are no gardener yourself—to be amazed at the waste of half-a-dozen healthy young plants for each one allowed to remain; and the only difference in the farmer's treatment of his weeds and of his Turnips seems to be that, whereas he tries to hoe up all the weeds he merely hoes up five



A GROUPING OF THE WHITE LILY (*LILIUM CANDIDUM*).

Petunia which originated in the park, rosy magenta, edged white, named Camberwell Beauty. This is one of the best yet raised. A. D.

THE MADONNA LILY.

PICTURES of the Madonna Lily never weary, so we make no apology for publishing the accompanying beautiful illustration, which we are able to do through the courtesy of Messrs. Webb and Sons, Wordsley, Stourbridge. It is rarely that one sees such a splendid group of the white Lily, but what could be more attractive in early summer? It is worth remembering that there are two distinct forms of *Lilium candidum*—the poor or starry-petalled form and the good or broad-petalled variety, and the latter should be planted. It is needless almost to repeat the oft-expressed injunction to leave the bulbs of the white Lily undisturbed. The best advice the cottager, in whose garden they luxuriate, can give is "to leave them alone."

ROUND ABOUT A GARDEN.

THE SPARROW QUESTION.

ONE is often asked—indeed, one often asks one's self—whether sparrows do more harm than good in a garden; and perhaps the answer depends more upon the temperament of the answerer than upon the proved facts of the case. Certainly their utility in exterminating "noxious insects," &c., cannot be large, because in a London back garden, so thoroughly patrolled all day by reconnoitring sparrows,

or Primroses which grow in the open—those which grow in the shade of shrubberies are attacked by the greenfinch instead—that we can differentiate the sparrow's work at all. This, some say, leads us to take an unfair and jaundiced view of the sparrow in general; and they ask us to admire its utility in "keeping down the weeds."

BIRDS AND WEEDS.

It is at this time of the year, after the harvest has been cleared from the land, that the sparrows do most to justify the arguments of those who defend them as useful enemies of the weeds. You have only to watch the flocks of sparrows in the empty fields for a few minutes to see that they are waging ceaseless war upon the weeds. There is a large Clover-stubble here, in one corner of which a stack stood last year; and on the rank ground where the stack was a matted growth of Knot-weed covers the ground. Here large flocks of sparrows seem to feed all day, and the crop of one that was shot contained several hundred seeds of weeds and only one grain of damaged Barley, which the bird had probably picked up from the adjoining cart-road. It would be easy, by multiplying the hundreds of sparrows feeding at that spot by the hundreds of weed-seeds which each consumes daily to arrive at truly stupendous totals of the "good work" done by sparrows in a year. But I always look at figures thus obtained with an eye of doubt. So far as any patch of ground which I know in this sparrow-infested country is concerned, there are always more than enough weeds waiting to choke it up every year. If there were not a sparrow in the land the standing weed-crop of waste land could not be heavier than it is. Indeed, it is quite possible that by destroying

out of every six Turnips to leave room for each sixth one to grow. If, then, the gardener and the farmer deliberately destroy from 60 to 80 per cent. of their seedlings in order to get a maximum crop, may not the birds which assemble to eat the seeds of weeds be helping them rather than otherwise?

THE BALANCE OF NATURE.

Of course, in a state of Nature, where every species of plant is fighting desperately against its neighbours, the birds may decide the issue of the struggle against those kinds of plants whose seeds they devour; but I shall believe that the birds do good to the farmer in keeping down weeds when I see a field which, after being left to itself and the birds' kind services, does not bear a full crop of weeds all the same. I have not seen such a field yet. The fact is that the birds and the plants have grown up together through all the ages and thoroughly understand each other, so to speak. The plants know no way of saving all their seed from the birds, and the birds cannot eat all the seeds that the plants produce; but when man ploughs up the land with the idea of filling it only with grain for his own consumption, both the weeds and the birds hasten to take advantage of the disturbance thus caused in the balance of Nature.

ALLIES AGAINST MAN.

First of all the birds eat the worms and grubs which are turned up—and if the sparrow took his proper share in this work, following the plough like the rooks and gulls and starlings we might admit that he was doing good. Next, the birds try to eat as many as they can find of the seeds which man puts into the land—and in this the sparrow is only too energetic. Afterwards it is the turn of the weeds, which

hasten to fill up as much of the ground as possible before the crop gets under weigh. During this stage the birds are inactive spectators of the struggle between man and the weeds ; but when it is all over and the crop is ripening they come and help themselves to it freely, in spite of man's watchers and scarecrows. Later, when the crop has been harvested and the weeds are seeding freely, the sparrows are certainly ringleaders of the mobs of birds which come to eat the field-seeds ; but, as I have said, the net result of their voracity is not appreciable in the discouragement of weeds. There are certain crops which, as every farmer knows, leave the land in a shockingly weedy state, but this is not because the birds cannot help to keep down the weeds, but because the farmer cannot hoe them effectively. No, for all the good which birds do in keeping down weeds—although at this season they may eat little else than weed-seeds—I believe that all the sparrows in the country might die tomorrow and agriculture not be a penny the worse.

THE SPARROW'S AGGRAVATION.

It is, however, equally easy to exaggerate the harm which sparrows are supposed to do to agriculture, and even the farmer can afford a smile at the estimated "millions of tons of wheat" debited to the sparrow's account in

Britain by statistical pessimists. In a garden, however, which is created mainly for pleasure, it is aggravation rather than loss which counts, and the sparrow is past-master in the art of aggravating. In spring it is especially hard to keep one's kindly feelings towards wild life at large intact towards the sparrow, when you watch the self-satisfied and perky air with which he pulls to pieces an early clump of flowers, chucking a mutilated blossom on the ground with every jerk of his beak. No doubt you can keep him away from cherished plants by playing upon his fears with stretched threads of black cotton, to which some people attach bits of paper or hens' feathers as an extra bogey ; but in these utilitarian devices there is something which clashes so much with the unruffled pleasure which one seeks in a garden that one would rather have no flowers at all than see them protected with hens' feathers on strings. Perhaps it is a personal twist of character, but to know that a clump of Primroses in the open is protected from the sparrows by black cotton, even if I cannot see it, detracts greatly from the pleasure of it. Perhaps the reason is that in our gardens we aim at a complete and perfect triumph over Nature, and we resent the black cotton as unwilling tribute paid to the power of the sparrow, one of Nature's homeliest underlings. E. K. R.

BLUE - FLOWERED BULBS OF SPRING.

IF an average of colours in the flowers of any given district were taken, it would probably be found that the percentage of white-flowered plants would be the largest, the next would be yellow, then red, and at the end of the list would come blue and violet in much reduced proportion. There are reasons for all things, and we are taught to believe that the colours of flowers are given to them mainly for the attraction of insects, which are amongst the principal agents in their fertilisation. We poor humans, it seems, with all our predilections for colour and scent and form, are of no account in this part of the great scheme of Nature. Moreover, blue flowers prevail mostly in spring, and it has been suggested that since blue is not a conspicuous colour, it shows better against a background of fallen leaves and brown earth than in a setting of too vivid green. To be conspicuous, then, is apparently one chief aim of flower-life, but let us hope that we need not accept every theory advanced by learned professors as final, to the uprooting of some of the most cherished of our old-world fancies. Whatever attraction blue flowers may possess



THE APENNINE WINDFLOWER (ANEMONE APENNINA) AT FOOT OF TREES. (From a photograph by Miss Willmott.)

for the insect tribe, there is no doubt that they have a peculiar fascination for human eyes, perhaps by very reason of their greater scarcity, and at this season, when we ought to be making provision for next year's garden, it is well to con over in our minds both our requirements and the possibilities within our reach. Nearly all the blue-flowering bulbs and tubers of early spring are what we may call carpeting plants, though not of the carpet-bedding order. Many of them, like our native Bluebell or the Apennine Anemone, which we may have seen in its natural habitats, will spread, as it were, into wide lakes and pools of shimmering colour, hiding the brown earth strewn still with the tawny withered leaves of autumn, and looking, from afar, like the blue of heaven reflected on the unruffled surface of quiet waters. So if we cannot dip our plumb-line into the depths of her mysteries, we may at least take garden lessons from Nature, who colonises her subjects and seldom isolates them. It is far better, as a rule, to mass one or two kinds of plants which fit well into their allotted position than to put in dribblets of many kinds here and there.

Blue is a sadly indefinite term. In fact, if some able and trustworthy personage in authority would take in hand to settle the vexed question of flower colours in general, it would be a charitable deed. At present violet and lavender and purple, with their multitude of intermediate shades, do duty for blue in many descriptive lists, often to the great perplexity of the intending grower. A fair proportion of spring bulbs, however, *e.g.*, Chionodoxas, Scillas, some small species of Hyacinths, and Muscari may safely be called blue.

CHIONODOXAS

are so well known and so readily multiplied, both by offsets and seed, that there need be little difficulty in colonising them where there is room. It is not generally taken into consideration that these bulbs may be planted 6 inches deep or more without detriment. They will take care of themselves and flower all the more strongly. This is a fact to remember when a "drift" is in contemplation in a perennial border, as the bulbs, which are small, are then less liable to be forked out or disturbed. It is also a good plan in such a position to put over them some spreading but rather thin-growing plant—*Campanula pusilla* is as suitable as any—so that the Chionodoxas may pierce through the green carpet and their flowers keep free from contact with the wet soil. In time they disappear, but their place is taken later on by the dainty little Hairbell. Grown in masses Chionodoxas are amongst the most precious, as they are the most easily established, of our earliest blue spring flowers, and where it is possible to plant them in grass which is not too thick and abundant they are quite at home. The more we can naturalise such delightful hardy bulbs as Chionodoxas and Scillas the better. The first of the

SCILLAS

to flower, coming with the earliest Snowdrops, is the well-known *Scilla sibirica*, and the latest of the spring-flowering species, *S. peruviana*, pushes up its broad, conical heads of deep blue in May—an old-fashioned flower this, not very often met with now, for we are too fond of pulling our garden arrangements to pieces and remodelling them to suit its constitution, but where it can be left alone for a reasonable time it is extremely handsome. To come to flowers of a rarer description, some of the dwarf forms of

BULBOUS IRIS

may be allowed to fulfil our restriction of colour, such as *I. histrioides*, the new *I. wilmottiana*, and, possibly, the slate blue *I. sindjarensis*, but here again opinions may differ. It was my lot once, and only once, to see a very lovely blue Iris belonging to this section, which was labelled *I. Vartani*. Whether it was true to name or not, the flower itself was too beautiful ever to be forgotten. These rarer bulbs are too precious to be played with in the open, and seem to demand frame and cold greenhouse culture, at any rate for the present. There can be no divergence of opinion as to the claims of the beautiful

CHILIAN CROCUS

(*Tecophilæa cyanocrocus*) to head the list of pure blue spring-flowering bulbs. It is instructive to look back at the history of this lovely plant. At first it was coddled almost to death, but Herr Max Leichtlin, who took it in hand and through whom it seems first to have found its way into English gardens, soon discovered that heat was not what it wanted. It has since those days passed through various phases of frame and cool house culture, and it seems to be an established fact that it is quite safe out of doors if planted deeply in dry, sandy soil in a suitable aspect. It is not new, having been figured in these pages as long ago as 1881, yet where is the garden in which the Chilean Crocus is a familiar flower! Let us hope that it may not be long before this charming bulb, with its exquisite flowers of gentian blue, becomes acclimatised with us, at least in some favoured spots. As it is it may be commended to all real lovers of plants as worthy of their best endeavours, for even a bulb or two will give a sufficient number of well-lasting flowers to afford the keenest pleasure. Cultural notes from those who have been successful in its treatment would be both interesting and acceptable to intending purchasers.

A short list is added for the convenience of those who in their autumn planting wish to be reminded of pure blue or blue and white flowering bulbs for the spring garden, though with the utmost care it is not easy to lay down a hard and fast rule as to what is and what is not true blue.

Tubers.	(<i>Anemone apennina</i> bland)	<i>Iris Xiphium</i> (for early pots)
	<i>Chionodoxa Lucilize</i>	<i>Muscari botryoides</i>
	" <i>gigantea</i>	" <i>b. pallidum</i>
	" <i>aardensis</i>	" <i>conicum</i>
	<i>Hyacinthus amethystinus</i>	<i>Scilla bifolia</i>
	" <i>azureus</i>	" <i>hispanica</i>
	<i>Iris histrioides</i>	" <i>peruviana</i> (May)
	" <i>pumila cornelia</i>	" <i>sibirica</i>
	" <i>reticulata cyanea</i>	" <i>uckranica</i>
	" <i>sindjarensis</i>	<i>Tecophilæa cyanocrocus</i>
" <i>Vartani</i>	(Chilian Crocus)	

K. L. D.

THE AURICULA IN OCTOBER.

THE Auricula now prepares itself for the winter season. Towards the end of the month the plants can be removed to their winter quarters—frames facing south or the Auricula house, where they can remain through the next blooming season. They will now require less water as the air contains more at this season, and the heavy dews expected at this time of the year also increase the supply of moisture, but care must be taken that water does not lodge in the heart of the plant, as it may cause decay to set in and kill it. Watering only should be done when the air is mild and the wind southward.

If the surface soil has been encrusted by rain, damp, or stagnated air, stir lightly with a

pointed stick, and at the same time remove any decayed leaves. Continue to give as much air as possible both by night and day.

Bishop's Stortford. WILLIAM SMITH.

THE FRUIT GARDEN.

APPLE BEAUTY OF BATH.

ALTHOUGH we have an ample choice in first early ripening Apples, some of them carrying rich colour, yet we seem to have none that produces such pretty fruit as Beauty of Bath.

It was shown in very fine form by Messrs. Bunyard and Co., Maidstone, and by Messrs. Cannell and Sons, Swanley, at a recent meeting of the Royal Horticultural Society. Its free cropping qualities, beauty, and general excellence should make it soon become a popular early market Apple. It seems this year to be ready quite as early as Mr. Gladstone, to which it is an admirable companion. Miller's Seedling, a little-known early Apple, was also in the Maidstone collection. It succeeds the others very well. Red Quarrenden, Irish Peach, and Worcester Pearmain make up an excellent selection of early Apples.

A. D.

APRICOT MOOR PARK.

WHEN Mr. J. Crook recently exhibited a dish of very fine fruits of this old and meritorious Apricot at the Horticultural Hall before the fruit committee, it was remarked that old and good as the variety is—indeed, it is yet the best in cultivation—it has never had any certificate given to it. It was thought it might be regarded as absurd to do so now, although during the past few years some good old things have been so honoured. The only Apricot to which there is any record of a certificate being granted is one named Frogmore Early, the award being made as long ago as 1875. Moor Park is believed to have been introduced from the Netherlands about 150 years ago, and was first planted at Moor Park, hence its name. The failure of the variety, so noticeable still, of having branches which suddenly die, was seen and commented upon seventy years ago.

A. D.

RASPBERRIES AND STRAWBERRIES IN AUTUMN.

THESE fruits, so well known and so much appreciated in the summer season, have not, until within the past year or two, been duly recognised for regular supplies in the autumn. My object in detailing our mode of procedure at Gunnersbury is to encourage and extend their cultivation for autumnal supplies.

RASPBERRIES.

Cultivation, Soil, &c.—In this respect there is no deviation from that given to the summer-fruited varieties. Where the one thrives well, there also will the other succeed. It is advisable, however, to avoid a shaded position, all the light possible being needed to mature the fruits as autumn sets in, and likewise to guard against decay during damp weather. It is well, therefore, to select as open a spot as can be chosen; if facing the south or south-west so much the better, in order to secure as much benefit from the sunshine as can then be had. Avoid a heavy, retentive soil—this may be conducive to growth, perhaps, in some instances, but not to the maturing of the fruit. The rows should run due north and south when it can be so arranged. In our own case it is the reverse, but I should prefer it otherwise. The rows should be 6 feet apart in order to allow plenty of room for the circulation of air and for light between the rows. During the winter a dressing of farmyard manure is applied and lightly forked in, but should the growth be luxuriant this may be dispensed with in alternate seasons, a dressing of lime being substituted. When the ground is being dug over all the suckers that have run out are carefully removed. These Raspberries

are more disposed to throw out suckers than the summer-fruited varieties.

Pruning, &c.—These Raspberries fruit upon the young wood of the current season, therefore the pruning is merely a matter of cutting down to the ground line. I do not advise this to be done, however, too early, otherwise the young growths will be correspondingly early and therefore liable to be cut off by late spring frosts. (Even with this safeguard we were caught in April, 1903, when severe frosts ensued, and the growths were thus thrown back for fully a fortnight.) If pruned by the middle of March no time will be lost. About every third year it is a good plan to replant all, or, say, do one-third of the stock every year. This will allow of the ground being thoroughly trenched three spits deep, and for a liberal application of manure. In planting afresh elect the strongest stools only, casting aside all the weak ones. A good distance is 6 feet between the rows; there is no gain in planting closer, and in the rows it will be, say, 4 feet from stool to stool. The growths are allowed to come away in a natural manner, only the very weakest should be thinned out, no tying being done until it is seen that there are a sufficient number of shoots showing for fruit. This will be during the earlier part of August or possibly by the end of July in some instances. Then, if there are too many shoots to tie up, those

without any fruit are cut out to allow room for those with fruit. (I might add here that our crop was late in showing this season, hence it was the end of August before we had finished thinning and tying.) The shoots should be tied erect or as nearly so as possible. Our plan is to tie in a continuous line rather than in groups. By means of Bamboos a light trellis is made, to which the shoots are secured, a good plan being to sling each shoot separately, if not too long, to the Bamboo next above, the longer ones being first tied to the same Bamboo. Thus the one does not shade the other. Careful tying up prevents injury to the fruits during strong winds and gales. The first picking generally commences early in September in sufficient quantity to keep up a supply. It continues generally until the end of October. Last year (1902) we picked good dishes up to the middle of November, but that is an exceptional instance, I think. This season, 1903, there is promise of a late picking too, if the early frosts are not too severe. Protection is afforded against the depredations of birds by covering over the entire quarter with netting. For this we use nets made upon the square mesh (1-inch mesh) rather than use the old fish netting, which does not cover nearly so well. Towards the end of October, if there are still sufficient fruits left to ripen, it will be found a good plan to cover over with an additional net to protect from frost. It is surprising how much frost one net will keep off; two, therefore, will be more effectual.

Varieties.—The old October Red is still a good variety to grow for a late crop. The growth is somewhat short and stocky, the fruits of medium size. Belle de Fontenay is a better variety for general cultivation than the preceding, coming into bearing earlier, the fruits being larger and the growth stronger. We have also another variety, of which I do not know the name thus far (it was sent from France without a name attached). This is the finest in every sense, a robust grower, and one that fruits abundantly. It comes into bearing rather later than the preceding. We also grow a yellow variety, Surprise d'Automne, but this, so far, has not had a sufficient trial to be able to speak of it with any confidence. In addition there is the new variety first shown by Messrs. James Veitch last autumn; this I have not grown yet at Gunnersbury.

Uses.—We find that the autumn Raspberries are in great demand in the kitchen and stillroom for various purposes. As an addition to the dessert they are also welcomed when well ripened.—J. HUDSON, in the Journal of the Horticultural Society (1904). Reprinted by permission. (To be continued.)

CORRESPONDENCE.

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

NOVEL POTATO CULTURE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The so-called novel Potato culture is a century old if it is a day. My father, who worked in market gardens round London over sixty years ago, has more than once described to me this method of obtaining young Potatoes. Some market growers practised it on quite a large scale. In some instances sheds were used, but any spare frames were employed, the tubers being just covered with light soil and then thickly covered with straw. I believe that this system was still in use about thirty years ago, but the immense number of new



LILIUM SULPHUREUM IN A RICHMOND (SURREY) GARDEN.

Potatoes grown in the Channel Islands in unbeated glass houses killed it. Some years ago I had occasion to buy some Potatoes in the autumn. What they were I could never determine, but they were absolutely uneatable. They were put under a bench in a shed and were forgotten. I think it was in June that the shed was cleaned out, and to our great surprise this heap of old Potatoes had become a heap of new ones, and very nice they were.

J. CORNHILL.

LILIUM SULPHUREUM IN A SMALL GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—When first introduced into this country the Himalayan Lilioms were treated as cool greenhouse plants, as they succeeded indifferently out of doors. However, L. Henryi has since proved to be quite hardy, and to flower as freely outside as inside. Judging from the way L. sulphureum is flowering in a little front garden at Richmond it will do quite as well. Five years ago Mr. Corrin, the proud grower of the Lilioms, planted a few bulbils, seven of which grew. No special treatment was accorded them beyond mixing a little lime rubble,

and fowl manure with the ordinary garden soil. The first three years only growth was made, and Mr. Corrin felt disposed to pull them out, but fortunately left them for another year, when two or three flowered. This year (the fifth) all are flowering, six of the bulbils carrying three flowers each and the seventh one. The plants are about 5 feet 9 inches in height. Growing within a couple of yards of the road a few flowers were stolen last year, and to prevent them being seen the Privet hedge has been allowed to grow up, quite hiding them from passers-by. The ground at the base is quite thick with young plants grown from last year's bulbils. A. O.

FUCHSIA MME. CORNELISSON.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I think that the memory of your correspondent "R. D." (page 167) has played him false in connexion with this Fuchsia, and that Mr. Burbidge is right as to the date of its introduction. My reasons for so thinking are these: In a catalogue of new plants for the spring of 1857, issued by the then prominent nursery firm of William Rollisson and Sons of Tooting, now before me, only one Fuchsia with a white corolla is mentioned, viz., Princess of Prussia. Next, on referring to a catalogue of plants grown by John Salter, Versailles Nursery, Hammersmith,

for the spring of 1861, the variety just alluded to, Princess of Prussia, and that spoken of by "R. D.," Queen Victoria (Story) are both quoted at the lowest price of any Fuchsia, viz., 1s. each, whereas Mme. Cornelisson is priced at 3s. 6d. This would certainly indicate that Mme. Cornelisson was of more recent date than the other two; in fact, if priced at half a guinea the first season, which was the usual price for new Fuchsias in those days, the second year 3s. 6d. is a very probable price. Some of these old catalogues are most interesting reading, for in announcing their new Fuchsia Princess of Prussia (Smith), Messrs. Rollisson quote an extract from the *Gardeners' Chronicle* as follows: "Among the recent novelties at the Regent's Park exhibition the best Fuchsia with white corolla we have ever seen was exhibited, the flowers being of good size, the white pure, and the blossoms produced in great abundance; it was called Princess of Prussia." I well remember a large specimen of this variety in the Temperate house at Kew when that structure was first planted, and it used at that time to attract considerable attention. Among the varieties distributed

by Rollisson in the spring of 1857 were two that enjoyed a good deal of popularity for years; indeed, one, Rose of Castile (Banks), still remains a favourite. The other, Guiding Star, was one of the most symmetrical flowers I have ever met with. A notable feature of those far-off times was the prices asked for most plants, prices which the nurseryman of to-day might ask in vain. Thus the show Pelargoniums raised by Beck, Dobson, Foster, Hoyle, and Turner were quoted at a guinea and a half, one guinea, and 15s. each. Perhaps the greatest contrast with the present time is evidenced by the prices of Begonia Rex, two guineas, and *Cypripedium fairieanum*, three and five guineas each. Now the Begonia can be bought for a few pence, whereas the *Cypripedium* is to-day almost priceless. T.

VALLOTA PURPUREA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Before paying a recent visit to Messrs. Sutton and Sons' new range of glass houses at Reading I was quite in accord with your correspondent, P. Leonard Bastin, on page 196, as to his treatment of the Scarborough Lily. There I saw

two batches of recently-potted bulbs flowering most profusely. Each group consisted of about fifty plants in 5-inch pots. Some of the bulbs had two spikes of flowers. On an average each spike carried six to eight flowers. The blaze of colour produced by 100 spikes of this plant was gorgeous. The bulbs were exceptionally large, and I attribute their flowering so freely to their being well ripened. This may be the cause of so many failures with this plant, as after flowering the bulbs are often put aside to make room for some other plant coming into flower and given no special treatment till it is time for the flowering spikes to make their appearance the following year. A. OSBORN.

SOME GOOD VARIETIES OF MIGNONETTE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Some people are under an impression that there is little difference between varieties of Mignonette, and think one as good as another. But this is not so. I grow several sorts side by side so that they can be compared. The seeds were sown in pots in May, and planted out undisturbed into the open border early in July, where they made rapid growth, producing, from early in August till destroyed by frost, splendid blooms. Nothing is more useful to cut from during autumn, as the rain and damp do not spoil it. When sown early it gets tall and weak. Among highly coloured sorts I like Golden Queen, and when a good strain can be had the bright colours are most attractive. When used alone for filling a vase it is seen to great advantage. When the varieties are mixed Mignonette is not seen at its best. I have used this with good effect on a dinner table associated with other flowers. This sort is difficult to obtain true. This year I had seed from three different growers, and only one lot was true. As a compact growing kind of a whitish tint I can find nothing to equal Mile's Hybrid Spiral. For pot culture or the open ground it is equally good. This is the only one I grow for pot culture. Machet is very fine in pots when used for filling window boxes, &c. In spring this variety is sold extensively in the market, and is shown well at the Temple show. It is not branching enough to cut from, although the spikes are very large. If a reddish coloured Mignonette is wanted, then a good strain of Giant Crimson can hardly be surpassed. As a white sort I have seen nothing to equal Parson's White. Many years ago when first sent out the strain was grand and a free grower. For fragrance I think none is better than the common Mignonette. J. CROOK.

VEITCH'S AUTUMN GIANT CAULIFLOWER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice in THE GARDEN, page 199, Mr. T. B. Field recommends sowing the above Cauliflower about this date for wintering in cold frames and planting out in spring. Last year I had about 200 plants of this variety, and the same number of Early London, under the same treatment as advised by Mr. Field, but am sorry to say 90 per cent. of Autumn Giant went blind after they had been planted out and were a good size, whilst of Early London not one went blind and the crop produced was first-rate. The seed of Autumn Giant was from the same packet as that from which I am now cutting good heads. I am anxious to know if anyone else has ever experienced the same with this Cauliflower.

Rig Gardens, Corwen.

J. S. HIGGINS.

A SEEDLING MUSA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose a photograph of a seedling Banana, which I think has made a rather remarkable growth. The seed was sown the last week in January, but there was no sign of germination at the end of April. I took up the seed and gave it several sharp knocks with a hammer, which apparently made no impression. I put it back, and the seedling appeared above the surface three days afterwards. During the first month it made

very little progress, but since then it has grown rapidly and is now 8 feet 9 inches high. I had to cut off three bottom leaves as they were damaged.

JAMES HUTCHISON.

The Gardens, Broomend, Aberdeenshire.

FLOWERS IN WEST SURREY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This season has been remarkable in the West Surrey garden of Clare Lodge, Rowledge, for the luxuriant growth and blossoming of several plants not usually seen in English gardens. Firstly, in the spring, the Australian *Acacia dealbata*, already as high as the chimneys of the south-west gable against which it is loosely trained, had a profusion of its yellow silky blossoms, reminding one of the Italian Riviera; since then *Desfontainea spinosa*, *Eucryphia pinnatifolia*, *Tecomis*, a hardy Orange, and hardy *Abutilon*, Pomegranate, white Indian *Azalea*, *Camellias* red and white, *Grevilleas*, *Azara*, and a white *Passion Flower* have flowered.

Finally, on the 19th ult., a variety of *Banana* (*Musa*) was opening its fourth whorl of flowers and fruit, and, as far as I know, is the only specimen of this plant which has fruited out of doors in this district. The fruit is still very small, and I fear will not attain perfection unless we have a rare continuance of dry sunny weather. The *Banana* has been out four winters protected by *Bracken*, and is now somewhat spoiled by a high wind of a week or two ago which tore the handsome leaves.

The fruit stalk comes from the main stem at the height of 5 feet 8 inches from the ground. The tips of the leaves reach to 9 feet in height.

WILLIAM TIDY.

The Gardens, Clare Lodge, Rowledge, Farnham.

LADY SUDELEY APPLE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Of all the Apples which have come under my notice none have been more satisfactory than the *Lady Sudeley* variety for present use. It is the most highly coloured Apple I know of at the present time. Its flavour is first-rate, its size is above the average as a dessert fruit, but not too large. The tree is vigorous but not unduly so. It appears to succeed either on the seedling *Apple* or the *Paradise* stock. Moderate pruning should be observed. I do not think it is a tree which will



SEEDLING MUSA.

Height, 8 feet 9 inches; from seed that germinated five months ago.

bear severe pruning, as I notice many of the growths are terminated by a flower-bud, and this is generally indicative of moderation in pruning. It makes one of the most shapely bushes or pyramids one could desire. The growth has an upward tendency, but not too much so, consequently the tree assumes an open appearance when it is moderately pruned. I am trying it as a trained tree, and at present it bids fair to be a success. This season the fruit began to



EARLY TULIPS.

ripen about the third week in August, and we finished gathering by the end of the second week in September. The fruit is best eaten as gathered, and being soft it soon becomes mealy if placed in a fruit room. Its appearance suggests that it would make an excellent market fruit. There is another fine *Apple* which is often overlooked, viz., *Gravenstein*. It is not so imposing as the above, but of really good quality, and is ripe a little time after *Lady Sudeley*, and before *Worcester Pearmain*. The flavour is crisp and pleasant. When the fruit is well exposed to the sun it takes on a bright patch of colour on the sunny side, while the general colour is bright yellow or gold. This *Apple* is a better keeper than *Lady Sudeley*. The stock on which this *Apple* is grown will influence its colour and flavour considerably. It is grown here on the *Paradise* as well as on the free stock, and the difference in the colour, flavour, and time of ripening is most marked.

Cirencester House Gardens.

A.

EARLY TULIPS IN LINCOLNSHIRE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph showing one phase of bulb culture in Lincolnshire—that of growing early Tulips under glass for the London markets. The picture gives some idea of the immense number of bulbs grown; they are usually planted in boxes.

Lincs.

H. W. J.

PLANTS THAT NEED CAREFUL HANDLING.

(Continued from page 215.)

CONIFERÆ.

(16.) *THUJA DOUGLASHI*, Carr.—“A curious case of a woman being poisoned by handling the branches and leaves of this tree while gardening is recorded by Neudorffer in the *Centralb. f. Innere Medicin.** The symptoms were spasmodic convulsions, dyspnoea, and coma. Other persons appear to have been more or less affected who were working at the same employment. It appears probable, therefore, that

* *Nov. Rem.*, 1903, 65. Quoted in *Pharmaceutical Journal*, March 21, 1903, a e 422

the tree, which is cultivated for ornamental purposes, contains some poisonous ingredient to which some persons are more susceptible than others."

I admit this plant to the present list with doubt. But attention should be widely drawn to such a well-known tree in order that we may ascertain what are the real facts of the danger of handling it.

LILIACEÆ.

(17.) *Hyacinthus orientalis*, Linn., and varieties. (The common Hyacinth of gardens.)—"Forms of eczema* were said to have been produced in persons handling and cleaning these bulbs. Although the fact was familiar to gardeners, the cause did not appear to have been clearly traced. Experiments and observations at the Jodrell Laboratory, at Kew, had shown that both dry and moist scales were capable of producing considerable irritation in certain cases when applied directly to the skin. There was little doubt that the raphides were the prime agents. These needle-shaped crystals (composed of oxalate of lime) varied from 1-100th to 1-200th of an inch in length, and were arranged in close bundles, easily dispersed by rubbing the dry scales. In the growing plants they were doubtless protective, as snails, for instance, avoided Hyacinth bulbs, but attacked others growing close by. Roman Hyacinths (var. *albus*) were understood to cause greater irritation than other varieties."

Dr. D. H. Scott described some experiments which he had tried, tending to confirm the conclusion that the irritation of the skin produced by contact with the bulb scales of Hyacinths is due immediately to puncture by the numerous raphides."

AROIDÆ.

(18.) *Richardia ethiopica*, Spreng. "Lily of the Nile" (of gardeners); the common "Arum Lily" of Australian gardens.

Mr. J. Y. Johnson,† of Funchal, Madeira, shows that this plant is, like *Hyacinthus*, responsible for a form of eczema.

The laundresses of Funchal had tried to utilise the starch obtainable from the corms, but complained of the irritation in the hands produced by it, which, on examination, was found to result from the presence of numerous needle-shaped raphides.

Dr. Dickenson remarked that many of the cases referred to were not true eczema, but should be called dermatitis, such as those caused by the local irritation of minute hairs or raphides, while those which were produced by a poison affecting the blood generally might be considered to be true eczema.

Dr. Crichton said that green Elder leaves were very powerful irritants, and in one case in which he had ordered an application of Elder flower ointment, the druggist, having no flowers of the Elder at the time, used the green leaves instead, but this produced very violent irritation. The common Buttercup is also very irritating if applied to the skin.

CAMELLIAS AS WALL PLANTS.

IT is a question if we sufficiently realise the true worth of the *Camellia* for covering walls in winter gardens, conservatories, and greenhouses generally. There is no flowering plant that can boast of such a combination of high qualities as the *Camellia*, producing, as it does when in the full enjoyment of suitable conditions, foliage of the most dense and lustrous description, and flowers unsurpassed for beauty of form and colour. So long as gardening is practised in this country, so long will the *Camellia* hold a prominent place in the esteem of all plant lovers; and yet, in spite of all the love and admiration which has been for many years lavished upon this noble plant, it is a fact that it can scarcely be classed amongst really

popular subjects—that is to say, it is, as a rule, reserved to experienced gardeners to cultivate it; and a plant which is not universally grown by the owners or occupiers of small gardens can hardly be termed popular. That the *Camellia* is by no means a difficult plant to grow, those conversant with its peculiarities well know; and yet amongst small growers it bears the reputation of not being amenable to ordinary treatment. That this is a mistaken idea it would be an easy matter to prove, but into the pot culture of the *Camellia* I do not propose to enter. I may, however, remark that coddling and too heavy a compost are the stumbling-blocks which the amateur generally manages to encounter. A more natural mode of treatment, recognising the fact that the *Camellia* is really a hardy shrub, would work wonders, and would often be all that is required to ensure the right treatment being given. It may be safely asserted that wherever a greenhouse exists the *Camellia* may be grown to perfection, and that without unduly taxing the skill and resources of the grower. Far better would it be if the unsightly stages, which so often form a feature in cool plant houses, were done away with and the whole of the back wall covered with *Camellias*, which would, if properly treated, form a dense green curtain at all times beautiful, and which, from autumn until late in spring, would furnish an abundance of lovely flowers. Can there be anything more beautiful than a *Camellia* in full and lusty vigour—fresh, free, and bright in the way of foliage, the pearly white and bright pink flowers peeping out here and there in admirable contrast to the deep hue of the leaves? Nothing in the way of a floral display can be more beautiful than this, and it may be truthfully said that no pains would be too great to secure it.

WALL CULTURE.

There is no plant better adapted for covering a wall under glass than the *Camellia*, simply because it is one of the best of evergreens, and may easily be kept well and thickly clothed with verdure quite to the soil. Unlike the majority of those climbing subjects employed to cover walls, it does not exhibit such an almost unconquerable tendency to run away and expend its vigour upon the terminal shoots, to the complete impoverishment of the lower portion of the plant, thus denuding the base of the wall of foliage. On the contrary, by careful training in the early stages of growth, every part of the wall will be covered with a thick screen of foliage, fresh and delightful to the eye. The great point is to secure good young plants in 6-inch pots, seeing that they carry a head of foliage quite in proportion to the size of the pot, as in that case it may reasonably be supposed that they will be furnished with good roots. Such young plants are, as a rule, much better than older specimens for our purpose, as these latter are frequently somewhat devoid of young twiggy growth and leaves just where such is most required, and unless a good foundation is laid by thoroughly furnishing the base of the wall with free-growing wood, the result will really not be all that could be wished for. And now with respect to

SOIL,

about which many and diverse opinions exist, for loam, peat, leaf-mould, and mixtures in various proportions have been recommended by growers who should know something of the requirements of the *Camellia*. Let me, however, inform the inexperienced in this matter that very fine plants have been grown in pure loam, and equally good ones have been obtained when peat alone formed the rooting medium; at the same time I should warn the would-be *Camellia* grower that a loam fit for this plant to grow in, in a pure, unmixed state is not easily procurable, and I have witnessed such disastrous effects arise from the use of loam of bad quality that I would urge the inexperienced to exercise great caution in this matter, the best and safest way being not to use it in an unmixed state. We will, therefore, take for our border good fibrous peat and loam in equal proportions, and, in order to ensure its remaining for all time in a free, sweet, open state, we will add thereto a goodly portion of coarse silver sand, throwing in as an additional precaution against stagnation a good sprinkling of

charcoal in pieces about the size of a Walnut. Here we have a compost at once light and nourishing. The size of the border will, of course, have to be regulated by the amount of space at the disposal of the grower, as well as the extent of wall to be covered. For a lofty structure the border cannot well be too wide, but for a small or medium-sized greenhouse anything from 2 feet to 3 feet in width and 2 feet in depth will suffice. The ordinary means for ensuring perfect drainage must be taken, which, for the benefit of those not well conversant with this kind of work, I may state to consist of placing some 4 inches of brick rubble at the bottom of the border, and covering the same with old turves, thus preventing the finer particles of soil from entering into and choking the drainage. The plants may be set out in March, taking care that the balls of soil are in a moist condition, and ramming the compost well around them. It is perhaps as well to allow an unrestricted development the first year of growth, commencing the training process the following autumn. J.

A GENERAL CALENDAR.

SEPTEMBER WEATHER.

THE delightful weather we have been favoured with during the past few weeks has given quite a new aspect to the garden and made it most enjoyable. Many of the sub-tropical plants that looked stunted and almost withered up earlier in the season are a wealth of beauty, and are more generally admired now than they have been all the season.

Begonias.—These are now at their best, and should we have no frost to mar them they will be a source of interest for some time to come. Immediately after the first frost these should be carefully lifted with the fork, leaving the growth intact, and placed in boxes or laid on the border of a cool Peach house or vinery. Left until the corms leave the stems, these may then be stored away, in dry soil or sand, in any dry frost-proof place for the winter.

Hardy Cyripediums.—Those who wish to be successful in the cultivation of these hardy Lady's Slippers should lose no time in getting them planted in their permanent quarters. In their native habitats most of the hardy Orchids are found close to damp Moss, Grass, or Sedge, often in bogs or other sub-aquatic situations. I have found by experience that these may also be grown successfully in almost any border where they can be shaded from the blazing noonday sun. Remove the ordinary soil to the depth of 1 foot, fill in with peat, loam, and leaf-soil. Add to this some fine broken crocks, a little coarse sand, and plant firmly; should the soil be dry at the time of planting give a good watering. It is a mistake to think that hardy *Cyripediums* can only be grown in damp places. In their growing season they must have copious supplies of water, otherwise they will do with ordinary treatment. *C. parviflorum* and *C. spectabile* I have found best for this kind of treatment.

Geranium Cuttings.—Now is a good time to put these in. The cool temperature of the past few weeks has taken the softness out of the younger growths. They will now be easier to manipulate, better adapted to root quickly, and likely in every way to be more successful than the succulent growth of a month or so earlier. If pots or boxes are used for the purpose of striking them in these should be stood out in the open air for a few days, giving them a good watering, and as soon as the sun has well dried them they should be placed in a frame, taking the lights off on dry warm days.

Strawberries.—Where it was not possible to get these plants in earlier, owing to the long drought, no time should be lost now. Very little fruit must be expected next summer, but the plants will be getting established and a good crop may be looked to for another year.

Raspberries.—Cut away the old stems from which the fruit has been gathered and thin out the young growths, so that the best of the young canes

* Dr. Morris, C.M.G., in *Proc. Linn. Soc.*, November 5, 1896.

† *Proc. Linn. Soc.*, January 21, 1897.

may stand quite clear of their neighbours. On no account should these be overcrowded.

Cauliflowers.—These ought to be plentiful now, and if severe frost keeps off may be kept in supply until Christmas, or nearly so. Directly the hearts appear three or four leaves should be broken down so as to cover them. This will exclude several degrees of frost and help to keep them dry. On the approach of anything like severe frost it is an excellent plan to take up all the more forward plants, with good balls of soil, and lay them in closely in a pit or frame, where they will "turn in" almost as well as if left in the ground.

Endive and Lettuce.—Plant out the last batch of Endive, also more Lettuce. Should the weather prove mild this will be found most useful. A good batch of the Paris Market Lettuce planted out now in a cool house or pit will give some delicious and useful hearts about Christmas or a little later, according to the weather. T. B. FIELD.

THE KITCHEN GARDEN.

ONIONS NOT THINNED.

NOWADAYS there is such a demand for huge Onions, and for the purposes of exhibition they are an absolute necessity to win prizes, that one is apt to forget the kitchen requirements. To obtain the fullest crop of serviceable bulbs I am not sure that it is wise to thin the ordinary spring-sown Onions at all. Certainly those who do to get a uniform crop of the largest bulbs under ordinary treatment often have difficulty in producing quite small Onions for pickling. Often a small plot is set apart of some small growing variety for this purpose. Calling recently on Mr. Allan at Gunton, I noticed he had not thinned his Onion plot at all. In one cluster I counted as many as seventeen bulbs, some 3 inches in diameter. For general use here was a grand crop. E. M.

SAVOY SUTTON'S PERFECTION.

WHERE a Savoy of good quality and of medium size is required I would strongly recommend the above variety, as it appears to possess all these attributes. So highly does Mr. Cook value this variety that he grows at Sandringham huge breadths of it, and speaks well of it in every way. E. M.

ASPARAGUS.

IN trying to produce the finest Asparagus no doubt many persons grow it too thickly. Asparagus, like all other plants, must have space to develop its growth to the fullest extent. At Gunton Park Mr. Allan grows this vegetable extremely well; no doubt the soil there—sandy loam—assists him considerably. He grows his plants in rows 3 feet apart, not in the stereotyped bed fashion, where the roots are annually mutilated by digging out the alleys to cover the beds. Seven years since he made a new plantation, deeply trenching the soil first and adding manure liberally. In the spring vigorous year old roots were put out at the distance named, and now each clump measures on the ground quite 18 inches across. Just fancy the quantity to be had from such clumps! When the season is over Mr. Allan does not neglect the plants, but with short Pea stakes he supports the "grass" in each clump, so that the wind may not injure the crowns by causing them to sway about. He does not tolerate crops of weeds among the plants either, but gives the Asparagus the full benefit of the soil. How much more pleasant it is to have a full crop of anything in the kitchen than half a crop. E. M.

TOMATO UP-TO-DATE.

I REPEATEDLY see this Tomato in gardens in many parts of England, and, without exception, where Tomatoes are a success out of doors this is the best of all. I think it was raised by Mr. Allan, Gunton Park Gardens, Norwich, and I am sure it is a boon to all who require heavy crops of medium-sized,

well-formed, richly-coloured fruit, and that is the correct description of this variety. The fruit sets freely without artificial aid, is not corrugated, and is perfectly smooth. Given reasonable treatment, viz., good plants when put out and a sunny spot, the growth kept thin and watered when required, a good crop is assured. E. M.

LONG RUNNER BEANS.

WHEN a very fine sample of a Scarlet Runner Bean, a selection from Ne Plus Ultra, was placed before the fruit and vegetable committee at the new hall recently it was remarked that the Beans were too large. But the sample shown was so presented as to display its full capacities rather than its ordinary table fitness. I recently saw the variety Tydmonton Exhibition growing at Highclere Castle Gardens, where it was carrying a wonderful crop; the Beans hung in free clusters, and could be gathered by handfuls in remarkable abundance. The usual practice is to gather them when from 6 inches to 7 inches long, being then very tender and fleshy. The samples placed before the committee ranged from 11 inches to 12 inches long, but still were very tender and brittle. The progress made in Runner Bean production during the past twenty years is difficult to estimate. Certainly a good row of a modern variety will give three times the crop in bulk given by the old Scarlet Runner. A. D.

CYANIDE AS AN INSECTICIDE.

THE notes which have recently appeared in the gardening publications have made the useful qualities of hydrocyanic acid gas, when employed as an insecticide, abundantly clear. So much good has been said of it that some people have been tempted to believe that the horticulturist has at last obtained a perfect insect killer; but, unfortunately, it is not so, for though "cyanide" kills a great number of parasites, it does not kill them all. It has, moreover, a very bad effect upon some plants, a list of which experience alone will enable us to form. Since the American publications furnish us with interesting hints concerning its employment in the cultivation of Violets, and since the accounts which have recently appeared of the trials made at the Museum of Natural History, show its efficacious action on many parasites without damage to most of the plants treated, the study of the question should be completed, and we think it is a fit occasion to invite all horticulturists who have had, or are about to have, recourse to this insecticide, to make public the results of their observations.

Having for the last two years frequently employed hydrocyanic acid gas for the disinfection of greenhouses of considerable size (about 660 cubic metres), and having also submitted plants of different species to its action, in order to study their power of resistance, we will here sum up the results obtained. We will not insist upon the operation itself as described in detail in the article of MM. Constantin, Gérome and Labroy, except so far as the immersion of the doses of cyanide of potassium in sulphuric acid is concerned, and this operation may be simplified in the following manner: Each dose of cyanide is enclosed in a paper bag; the latter is closed and furnished with a string about fifty centimètres long, this permits rapid immersion without the risk of splashing the acid upon the hands. The mixture of water and sulphuric acid having been prepared in all the vessels, the operator takes all the bags in one hand, and starting from one end of the greenhouse he deposits one in each earthenware pan, goes out, and shuts the door. The work should be done quickly but without hurry. The attack of the sulphuric acid upon the paper takes a few seconds, and by the time the freeing of the "cyanide" begins, the operator is already beyond the reach of the gas, the diffusion of which is not instantaneous. There is really not the least danger in working in this manner, the only one which is practicable in many greenhouses

where the ventilators are not above the path. The operation is rapid, and requires to be done by one person only. The head gardener can do it himself, and thus avoid the great responsibility he would incur should a workman poison himself through any imprudent action.

We have used "cyanide" against a small number of parasites only, green-fly, thrips, and red spider, with doses of one, two, and three grammes of cyanide of potassium per cubic metre of air, the duration of the fumigation varying from twenty to forty minutes. The fly and the thrips were killed by the three doses in a few minutes. As for the red spiders they always passed through the operation unharmed, no matter what dose was used, or the duration of the fumigation. A few minutes of stupefaction was the result obtained in the most favourable cases. The immunity of this insect is also corroborated by American horticulturists, as is shown by what Mr. B. T. Galloway says in his work "Commercial Violet Culture," page 193.

The following plants bore without harm doses of from two to three grammes of cyanide of potassium per cubic metre for twenty, thirty, and forty minutes: *Richardia æthiopica*, *Poinsettia pulcherrima*, *Tree Carnations*, and *Hidalgoa Wercklei*. All the other plants which we have had occasion to submit to the action of "cyanide" in the doses mentioned above, have suffered from it to the different degrees mentioned below: Tomatoes.—The young parts, and the inflorescence about to develop withered within a few hours. *Asparagus plumosus nanus*.—The young stems withered two or three days after the fumigation; the adult stems remained unharmed. *Asparagus Sprengeri*.—The same effect upon the young stems; the adult stems themselves were attacked on some plants, the cladodes whitened and fell. *Sweet Peas*.—The young parts withered in one or two days. *Potatoes and Medeola*.—The same effect. *Kidney Beans grown in pots*.—At first the plants appeared to have suffered very little, the points of the youngest leaves only were slightly scorched. On taking some of the plants out of the pots, it was found that all the roots near the sides had been killed.

The unfavourable results mentioned above were observed after fumigations made at nightfall, or in complete obscurity, the plants being always perfectly dry. Thus it often results that from plants of different species being grown in the places to be disinfected, hydrocyanic acid gas cannot be used. However, the services it renders, where the nature of the plants permits its use, are very valuable, and this is why it is so desirable that methodical experiments should be undertaken in different directions in order to determine precisely its nature and the extent of its effects upon plants and upon the enemies of plants.

A. RICHON, in *La Revue Horticole*.

GARDENING OF THE WEEK.

FLOWER GARDEN.

EREMURUS.

SLOWLY but surely these noble herbaceous perennials are gaining favour. A flower lover has only to see a group, or even a single plant, in flower at once to have an intense desire to possess some. With a little protection, such as that afforded by a layer of leaves or cocoa-fibre during the winter months, the Eremuri are quite hardy. The essentials for their well-being are shelter from all rough winds, but exposure to direct sunshine, so that the roots are well ripened, and a rich, well-drained soil. A mixture of sound fibrous loam, leaf-mould, decayed cow manure, a little charcoal, and plenty of grit or road scrapings form a suitable rooting medium. I would not advise the addition of peat unless it is of the first quality; inferior peat quickly becomes sour and unwholesome. Allow a few days for the soil to settle. Keep the crown raised slightly above the surface of the soil and plant carefully, for the claw-like roots are very

brittle, and for this reason it is not advisable to move established roots of *Eremurus*.

While unplanted the roots should be kept in damp moss or fine soil, as in common with most of their order, Liliaceæ, they deteriorate quickly upon exposure to the air. Small and cheap roots are usually very disappointing, as they take several years to become sufficiently strong to flower.

The *Eremuri* have been frequently illustrated in the pages of THE GARDEN that their general appearance is so well known as to render any description unnecessary. Of the score or so of kinds known, probably

THE FOLLOWING ARE THE BEST:

Eremurus Bungei, from Persia and Turkestan, and which bears yellow flowers having deep orange stamens; *E. Olga*, with curved and slightly glaucous foliage. The flowers are tinted bluish or lilac, and the anthers are yellow; *E. himalaicus* produces stems fully 6 feet high, and the upper portion is crowded with creamy white flowers; *E. robustus* is even taller than the last; the flowers, which are of a pleasing pink colour, are somewhat more loosely disposed, and are set off by orange-red anthers; *E. robustus elwesianus* differs from the foregoing in being somewhat stouter in habit, and in having slightly larger flowers. Here it did not attain the height of *E. robustus*, nor did the flowers last quite so long; but it is a most desirable plant, and, in common with the species, emits a pleasing perfume. The flowering period varies with the locality, and may be given roughly as from the latter part of May to July. *E. Olga* and *himalaicus* are the earliest, and the rarer but older *E. Bungei* is the latest to flower.

CALCEOLARIA CUTTINGS.

These and cuttings of *Gazania splendens* should now be inserted. Choose the smaller shoots which have no flower-buds and cut with a sharp knife. Where a quantity are required, the usual method is to make up a bed in a cold pit or frame. The soil should be sandy and contain sufficient leaf-mould to encourage root action. Cuttings firmly inserted at about 2 inches apart and kept close and shaded usually root freely. *Calceolaria amplexicaulis* is a trifle slower than the other kinds. A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

ORCHIDS.

DECIDUOUS CALANTHES.

To obtain the finest flowers it is essential to have well-ripened bulbs. When they have been given good manure water or have been grown with manure in the compost the bulbs will take far more maturing than those grown without the aid of manure. To bring about this ripening the plants should be placed in a light position, allowing plenty of room so that the heavy foliage does not prevent the light reaching the bulbs; a brisk temperature should be maintained with a good circulation of air. I do not advocate withholding water to hasten ripening so long as the foliage maintains its freshness. If that is done the foliage will draw from the supply of nourishment stored up in the bulb for flower production and to start the next year's growth. When the leaves begin to decay naturally then gradually reduce the supply of water, continuing the reduction as the decay of the foliage advances. When all the foliage is gone no more water is necessary. Growers who have tried the method I suggested on April 9 of growing *Calanthes* without the aid of manure will, I feel sure, see a great difference now in the colour and hardness of the bulbs compared with those grown

with the aid of manure. It would form a very interesting subject for discussion when the plants are in flower.

THUNIAS.

Those struck from cuttings this year should be ripened as quickly as possible. It is not wise to subject them to the same amount of rest as the old plants receive; sufficient can be given by placing them in a light position in the intermediate house, and gradually begin to withhold water.

CYPRIPEDIUM INSIGNE AND VARIETIES.

As the flowers appear they should be lightly secured to a slight stake. If this is deferred till they are fully opened the flower-stems are oftentimes crooked, and the flowers cannot be shown to the best advantage. Well-rooted plants should be kept well supplied with water on all favourable days, and on warm nights air should still be freely given, so long as the night temperature does not fall at this season below 55° no harm, but much good, will result from free ventilation.

THE ODONTOGLOSSUM HOUSE.

Many plants are now ready for repotting, and this work should be proceeded with at once, as advised in calendar notes of April 9 and August 6. Some that have been potted at other times this

work is taken in hand. Young trees making excessive growth and not fruiting satisfactorily should be lifted. Older trees that are making too strong a growth and are too large to be moved should be root-pruned. Before commencing to root-prune or lift water well to have the soil fairly moist. In root-pruning open out a trench 3 feet or 4 feet from the stem and gradually remove the soil without injuring the roots, carefully dig out the soil from underneath, cut off any descending roots, and carefully remove gross ones. Return a fair proportion of the old soil when filling in unless it is sour, or, when old worn-out trees are being removed and young trees planted, only a little of the top soil should be returned. Freely syringe transplanted trees. The earliest varieties should be planted in the warmest position facing due south, and later varieties between that and due west. Good outside varieties of Peaches are Hale's Early, Condor, Waterloo, Bellegarde, Dymond, Violette Hâtive, Princess of Wales, and Walburton Admirable; of Nectarines, Early Rivers', Dryden, Lord Napier, Stanwick Etridge, Humboldt, and Newton are all good.

APRICOTS.

These require similar positions to Peaches and Nectarines, and the same treatment as regards root-pruning, &c. Now is a good time to prune



LÆLIO-CATTELEYA ELEGANS AT THE WOODLANDS, STREATHAM, THE RESIDENCE OF MR. R. H. MEASURES.

year and do not now require it would benefit by having fresh surface moss. Every attention must now be given to see that slugs do not get the new roots that are freely pushed out; they play the most important part in building up a good pseudo-bulb. Traps, such as a little bran placed on a piece of crock or cardboard, or a Lettuce leaf, are both good. These and the plants should be inspected nightly. It is of little avail to give every other attention to their culture and neglect that of keeping down slugs. W. P. BOUND.

Gatton Park Gardens, Reigate.

FRUIT GARDEN.

HARDY FRUIT.

As soon as the fruit has been gathered from Peach and Nectarine trees root-pruning and lifting will demand attention. Good fibrous loam, lime rubble, and burnt ash to the quantity required should be prepared, so that there shall be no delay when the

trees and to reduce the number of old spurs if these are too thick or too long, as the best fruits are produced nearest the wall and the wounds heal more quickly at this season. If, however, the trees are crowded, too much thinning should not be done in one season, but allowed to extend over the next two years. Apricots should never be allowed to suffer for want of water at the roots. Moor Park is still one of the best varieties, although at times the branches die off suddenly. Other good varieties are New Large Early Hems Kirk, Shipley, and Breda.

APPLES AND PEARS.

October is the best month to transplant young trees from the reserve garden or to lift and cut off the strong roots of those growing too vigorously. Any old worn-out trees that are incapable of producing good fruit should not be allowed to remain. In making new stations for Apples, Pears, Plums, &c., the work should be taken in hand as soon as possible. The ground should be well trenched

2 feet deep and well drained. In planting single trees prepare new stations 6 feet square and 2 feet deep. Good loam is generally all that is required. Lime rubble and burnt ashes should, however, be added, according to the nature of the soil, to induce the trees to make fibrous roots and short-jointed fruitful wood. Select those varieties most suitable for the purpose required.

Impney Gardens, Droitwich. F. JORDAN.

KITCHEN GARDEN.

LATE POTATOES.

Most varieties are now ready for lifting. They should be picked over and stored, as advised in a previous calendar, for early varieties. Choose a dry sunny day for the operation, and allow the tubers to lie on the ground for an hour or two before they are gathered. Pick out all diseased tubers even though fairly good. If the haulms show signs of disease they should be removed at once from the garden and burned. It is most advisable to obtain a change of seed occasionally, and this is a good time to purchase. Prices often rise higher in spring.

BETROOT.

In cold parts of the country this ought now to be taken up, but in the south it may be left for a month yet. A slight frost is considered beneficial, but all roots should be lifted during this month. In lifting the roots loosen them first (so that the main root may not be broken) with a digging fork. Cut the foliage off 2 inches from above the root, and stack them in a dark, frost-proof shed or cellar. Sand is the best and cleanest thing to use in storing. Place it between the layers. All extra large roots should be discarded, the medium ones being best in colour and flavour generally.

ASPARAGUS.

As soon as the growths on the old plantations are well ripened they should be cut down to the ground and the beds given a thorough cleaning. A top-dressing of good soil and well-decayed manure may be given now. It is too early yet to put on any covering material, and unless severe frosts set in the beds may be left bare. In many gardens the covering of Asparagus during the winter is being discontinued. In cold, wet gardens a covering of clean straw during severe frost would be advantageous, but on warm, light soils no covering is required. If new beds, or beds of seedling plants, are still green they should not be cut down till they show signs of ripening.

CAULIFLOWERS

are still plentiful. Autumn Giant is doing well this season. Frost may be expected any morning now, so the leaves should be broken down over all heads fit for use. To prolong the supply the plants may be lifted and wheeled into a cool shady spot where they can be protected from frost. Plants from seed sown early last month may now be pricked into frames, keeping them hardy. The lights should be removed every morning, and only placed on during frosty weather.

Hopetoun House Gardens, THOMAS HAY.
South Queensferry, N.B.

SELECT BULBOUS PLANTS FOR GREENHOUSE OR BORDER.

OF material for choice there is abundance, and it is probably the endless variety and the never-ceasing influx of novelties that make selection difficult. Some amateurs, fortunately for themselves, possess a sufficient knowledge of the different kinds, and a selection of good bulbous plants is to them an easy matter. Others, with less experience, find a difficulty in making a choice. Early planting is necessary to ensure the best results. Equally desirable is it that early orders should be given so that a good choice of bulbs or roots may be made.

ROMAN HYACINTHS.—Not only is the so-called Roman Hyacinth a most desirable subject on account of its early flowering and adaptability to forcing, but its value is enhanced by reason of most of the stock from which the British supplies are drawn having been for years past cultivated in a warmer country than our own, and thereby flowering and maturing earlier. The largest bulbs do not invariably provide the best spikes of bloom, but those rather of a medium size that are firm, solid, and possessing weight for size. The bulb that yields to the pressure of the hand is not the one that will give the best results, no matter how well cultivated. The best bulbs are the cheapest in the end, for it costs no more to tend them, while the produce may be doubled or even trebled. Bulbs of first size invariably yield two good spikes, and some even more. Timely potting, due preparation, and a long season of mild forcing are important items. From such treatment good spikes may be obtained early in November. The Roman Hyacinth may be had in bloom earlier than this, but the results generally are unworthy of the amount of fuel expended. Potted in the early days of September, plunged in ashes in the open for six weeks, well-rooted plants may be introduced into warmth from mid-October onwards where the earliest flowers are required. If flowers are not desired before mid-December pot the bulbs just as early, giving them a longer period of preparation, and, finally, when introducing them into the forcing house, do so by easy stages.

As the bulbs are plunged in the open, so they should be covered with cocoa-fibre refuse quite 6 inches deep when in the forcing house. Not only does this conduce to a uniform temperature, but it materially assists in bringing out what is often lacking—a good length of stem. Finally, when the blossoms appear remove the plants from the plunging material, return to the pit, and gradually inure them to the light. A moist temperature with a bottom-heat of 75° to 85° will be found quite high enough. Three bulbs will suffice for a 5-inch pot and five bulbs for a 6-inch pot. Firm potting, with the apex of the bulbs just visible above the soil, is the method generally adopted. Pots of Roman Hyacinths specially required for Christmas decoration should be brought in the forcing pit at least four weeks earlier. At this period it is quite an easy matter to obtain perfect pot-grown plants, and if gradually hardened they make desirable ornaments for the home. I have dwelt at some length upon the cultural requirements of the Roman Hyacinth, because of its early flowering and general utility. At the same time the principal cultural directions given will apply to other bulbous plants forced under glass.

THE DUC VAN THOL TULIPS.—These may be had in several shades of colour—rose, scarlet, white, vermilion, and yellow. They are now grown in immense quantities, and may be had in bloom from November onwards by adopting precisely the same cultural methods described for the Roman Hyacinth. They are bright, effective, and among the cheapest of bulbs suited to early forcing. Great numbers are grown in shallow boxes in market nurseries, and when in the full bud are potted up for sale. Quantities are also disposed of as grown in the boxes, and exceedingly bright and pretty they are. These dwarf Tulips are particularly bright and pleasing for Christmas and the mid-winter season generally. Van Thol Tulips, however, are quickly displaced by the bolder types of Tulips that are so much better suited for cut bloom. Of these, generally known as

SINGLE EARLY TULIPS, I give the following selection: Queen Victoria, shapely white flower, first early and splendid for forcing. As La Reine, this kind is the chief early white in the market for many weeks. As a bedder it is also good, and in the open the flower is suffused with rose; L'Immacule, fine white pointed buds; Yellow Prince, like La Reine, is excellent for early forcing or for bedding. Of richly coloured sorts suited to early work I recommend the vermilion Jules Janin, not yet generally known. It is a large flower, shapely, and rich in colour, forcing well. For a succession to the above there are King of the Yellows, Pottebakker, Canary Bird, and Goldfinch,

all beautiful yellow varieties well suited to planting in the garden or for forcing. For second early forcing Vermilion Brilliant is to be recommended for its colour. It is of excellent shape. To these may be added, for bedding or succession under glass, Joost Van Vondel, white; Kiezerkroon, red and yellow; Pottebakker, white; Proserpine, rosy purple, very distinct; Thomas Moore, orange; Rosamundi (Huyckman), Queen of Whites, fine long-stemmed kind, handsome; Duchess de Parma, red, margined gold, a grand flower; Crimson King, Belle Alliance, scarlet; and Bacchus, deep red.

SINGLE HYACINTHS.—The following is a selection:—White: Albertine alba superbissima, *Grande Vedette, Queen of England, *Baroness Van Thuyll, *Mina, L'Innocence, Marie Stuart, and *Mme. Van der Hoop. Blue: Electra, Czar Peter, *Grand Lilas, Baron Van Thuyll, Lord Derby, *Queen of the Blues, and King of the Blues. Yellow: Ida, King of Yellows, and L'or de l'Australie. Red, rose, or crimson: Etna, Incomparable, Roi des Belges, Gertrude, Prince of Wales, Prince Albert Victor, Lady Derby, Sarah Bernhardt, Rosea maxima, and Norma. Those marked with an asterisk are best for early forcing. All are well suited for pots or for bedding.

DOUBLE HYACINTHS.—I have given prominence to the single varieties as being the more useful, but I give a select list of doubles also. White: La Tour d'Auvergne, forces splendidly; La Grandesse and Princess Alexandra, very pure. Blush white: Edison, Isabella, and Princess Metternich. Dark blue: Charles Dickens, Garrick, and Van Speyk. Rose shades: Prince of Orange, Leo, and Lord Wellington.

SNOWDROPS.—Those of your readers who are interested in the flowering of the earliest bulbous plants, and who possess but small means for forcing the Tulip, Hyacinth, or Daffodil, should be the first to grow the many charming sorts of Snowdrops, for very few hardy flowers possess so much beauty and elegance, and none are better suited for pot culture in the greenhouse from which frost is excluded. A few pots or bowls filled with Snowdrops or Crocuses, or both, not only are delightful in the home, but they are equally valuable for transferring to a window-box at a date when so little is to be had in bloom. Snowdrops have not yet been grown in pots as much as they deserve. No cheaper and certainly no more dainty a flower could be had in the long dreary days of winter than the Snowdrop. A flower-pot 5 inches across will accommodate a dozen or more of the tiny bulbs, and if grown in the cool greenhouse for a few weeks a good flowering is ensured. The following are good ones: Galanthus cilicicus, flowering in November and December; G. Elwesii, of which selected flowering roots are very cheap; desirable where large numbers are required. G. E. cassaba, G. E. ochrospeilus, G. plicatus, and G. Ikarise, very large flower and arching leaves. There are also the single and double forms of the common Snowdrop (Galanthus nivalis), the type still perhaps the most elegant of its race. Any of these may be grown in pots, and all are of value and beauty in their day in the outdoor garden.

NARCISSI AND DAFFODILS.—These are of the greatest value for pots or the garden, and in another note I may refer to them alone. For the present I would like to mention briefly some that too frequently escape notice, but which nevertheless are well suited to the cool greenhouse quite early in the year. I mean the rich yellow Narcissus Bulbocodium; N. monophyllus, white; the very distinct yellow-flowered N. cyclamineus, N. minor, N. minimus, the smallest of all trumpet kinds, and simply exquisite when well grown in pots. Then we have N. triandrus (Angel's Tears), also very charming when pot grown under glass, which lasts in beauty a long time. If not required for earlier work, and I do not advise forcing for these, the above mentioned dwarf sorts if grown in the cold house or the coolest greenhouse that simply was safe from frost, would flower in company with such pretty hardy free flowering Cyclamens as C. Coum, C. C. album, C. ibericum, &c. All are very beautiful in pans and very dainty. These are of quite easy culture and very hardy.

Of quite a unique type of beauty are the many species of

BULBOUS IRISES, of which we may take *I. persica*, *I. Heldreichii*, *I. Histrio*, *I. histrioides*, *I. bakeriana*, together with the fragrant *I. reticulata*, and others. These are but a few of the great wealth of beauty to be found among the early Irises, and if only one of these could be grown I would recommend *I. reticulata*, of the richest violet-blue, and a delightful fragrance. It is an ideal pot plant. Two other groups of indispensable and fragrant flowers remain to be mentioned. These are *Freesias* and *Lily of the Valley*. In each instance special treatment is required to bring the flowers to perfection, and to this I may briefly refer in a subsequent note. E. H. JENKINS.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY.

The floral committee of this society held its first meeting of the season at Essex Hall, Strand, W.C., on the 19th ult., Mr. D. B. Crane in the chair. After the minutes of the last meeting had been read and confirmed, the election of chairman of committee for the present year was proceeded with. Mr. D. B. Crane was the only candidate nominated for the position, and he was unanimously re-elected. Four Japanese novelties were submitted for adjudication, a first-class certificate being awarded to

Leigh Park Rival.—This is a large and attractive exhibition bloom of good substance, florets long and broad, reflexing, curling and incurving at the ends. The colour is one of its chief attractions, this being a pleasing canary yellow, with a primrose reverse. From Mr. C. Penford, The Gardens, Leigh Park, Havant, Hants. The committee wished to see again

George Hutchinson.—A large and full reflexed Japanese flower, having long florets of medium width; colour deep rich crimson, with bright golden reverse, and with a golden centre. This is a flower of considerable promise, and from a later bud selection will be much admired.

SCOTTISH HORTICULTURAL ASSOCIATION.

ON Saturday, the 24th ult., a number of the members of this association visited the Redbraes nurseries of Messrs. James Grieve and Sons, Broughton Road, Edinburgh. The principal object of the visit was to see the large and choice collection of early-flowering Chrysanthemums, which were found in full bloom and in splendid condition. Their adaptability to cultivation in the atmosphere of a town was well seen, the collection at Redbraes being entirely cultivated in the open, and in a portion of the nurseries exposed to a good deal of smoke. Such, however, are the effects of good cultivation that the plants were in excellent condition and the flowers very fine. Among those of more recent introduction the following were observed: *Cactus*, fiery terra-cotta; *Carrie*, deep golden-yellow; *Charlie*, white, with cream centre, and a good habit; *Champ de Neige*, dwarf, snowy white, and a very fine flower; *Mrs. Vere Shaw*, creamy white, with blush tips; *Maggie*, deep yellow, with dwarf habit; *Polly*, an excellent variety with very deep orange flowers; *Rosie*, rich terra-cotta, and fine for cutting; *The Champion*, deep golden-yellow, and very fine; *the fine Goacher's Crimson*; and *Jason*, good yellow. The rich bronzy sport from Mme. C. Perier was noticeably good; and *The Sparkler*, crimson-scarlet, slightly incurved; *Satisfaction*, ivory white; *Mythett Pink*; and *Harmony*, rich apricot, shaded carmine-rose, were among the others of recent introduction. Such good older varieties as *Mythett White*, *White Mrs. Pitcher*, the dwarf golden-yellow *Pompon* *Pilgrim*, *Crimson Marie Masse*, and all the best of the other older varieties were in excellent condition and full of bloom. Among later-flowering varieties grown in very large quantities were *Soleil d'Octobre* and its bronze sport, *La Triomphante* and its bronze and yellow sports, *White Quintus*, *Niveus*, *Nivette*, *Framfield Pink*, and others. The fine collections of choice Dahlias, *Pentstemons*, *Antirrhinums*, and *French Marigolds* also attracted much interest and were much admired, and many of the visitors took special notice of the *Violas* and *Fansies*, although the long-continued dry weather had told upon them. The large breadths of *Carnations* were just over, but had been unusually fine. Many other interesting flowers and plants were seen, and the pleasure of the members was greatly enhanced by having as their guide Mr. James Grieve, one of their most popular members. Messrs. Grieve received the hearty thanks of the members for their kindness and courtesy.

DUNDEE HORTICULTURAL ASSOCIATION.

THIS thriving association held its annual meeting in the Technical Institute, Dundee, on the evening of Friday, the 16th ult. There was a good attendance, presided over by Mr. R. Cairns. Mr. James Bethel, Westwood Gardens, Newport, the secretary, submitted the twenty-fourth annual report, which was very satisfactory, the session having been one of marked progress and continued horticultural usefulness. The report stated that there were ninety members on the roll, and that the average attendance at the monthly meetings was about fifty, a very satisfactory number considering the distance some members were from the place of meeting. Mention was also made of the high-class character of the exhibits, the number of first-class certificates awarded being seven. The annual accounts were also submitted, and were considered satisfactory, there having been an income for the year of £16 15s. 5d., while the balance in hand at the close of the year amounted to £4 2s. 5d. The retiring office-

bearers were heartily thanked for their services, and the appointments for the ensuing year made. Much interest was taken in the exhibits before the meeting, these comprising a group of *Carnations* sent by Mr. David Halley, and a good collection of *Potatoes* from Mr. William Kicoll. The former included a number of new varieties, and the cultural skill shown was very creditable to Mr. Halley, who, it may be mentioned, is an amateur. Mr. Nicoll's *Potatoes* were well grown, and especially interesting at a time when the *Potato* is receiving so much attention.

ROYAL HORTICULTURAL SOCIETY.

SCIENTIFIC COMMITTEE.

SEPTEMBER 6.—Present: Dr. Cooke (in the chair), Mr. Douglas, Dr. Rendle, Mr. Holmes, and the Rev. W. Wilks.

Pink Mould on Charred Wood.—Dr. Cooke reported that the pink mould on burnt wood, sent by Mr. Saunders, was common on all kinds of vegetable matter, dead or decaying, and had recently been claimed as a parasite on Apples (*Journal of the Royal Horticultural Society*, XXVIII., page 233). The conidia are profuse, colourless, elliptical, and uniseptate when mature. It is called *Cephalothecium roseum*.

Orchid Leaves.—Dr. Cooke reported that the light-coloured spots on *Cypripedium* leaf forwarded by Mr. Douglas were deficient in chlorophyll and semi-translucent, but contained no trace of fungi. The dark-coloured spots appeared to be scars from wounds, but contained no trace of fungi.

Pleiotaxy of Carnations.—Miss Harrison, of Wrrington, sent several specimens.

Supposed Damage from Foxglove.—Lady Roscoe enquired whether some deleterious substance did not come from *Foxgloves* which harmed other plants. She was also suspicious of *Nicotiana affinis* having the same effect, as plants near either seemed to languish. It was considered that any harm could only be done by the shade of the large leaves, or by the roots devouring all the food in the soil.

Diseased Oak.—Lady Mary Herbert sent specimens of disease in roots of Oak. The specimens plainly showed the marks of injury, and the disease had evidently been caused by water entering through the injured parts and causing ordinary decay.

Chermis laricis.—Lady Herbert also sent specimens of Larch attacked by this pest, now only too common. Nothing could be done, save to use one of the soft soap and paraffin sprays.

Soil.—Mr. Dean, gardener to E. Powell King, Esq., Wainsford, sent specimens of soil which it was proposed to use for Peach trees. It showed brown, thread-like marks, following the decay of some previously-existing roots. It was considered unsuitable for the purpose, as likely to engender fungus.

Nut-mite.—Adolph Reikmann, Esq., Nottingham, complained that, having been compelled to destroy his Black Currants on account of the bud-mite, the insect (or one very like it), seemed now to be attacking his Filbert nuts.

TWO TOWN DAHLIA SHOWS.

ONE of these was that of the North London Dahlia Society, the flowers which competed having been mainly grown within the borough of Hornsey or in adjacent localities. It was held in the large hall of the Alexandra Palace, Muswell Hill, a hall which would be invaluable for such purposes were it within easy reach of Charing Cross. The *Cactus* type of Dahlia was most largely shown, and some good blooms were staged; there were a few show Dahlias, also *Pompon* and single varieties, but it is clear that the *Cactus* varieties are in the ascendant. The common fault with the show flowers and also some of the *Pompons* was that they were cut when a little too much advanced in bloom, with the result that the centres had become defective. The society is young, but it should be said there is room for improvement both in the culture of the flowers and in the methods of setting them up. The space set apart for the flowers had a boundary line of very handsome exhibits of *Cactus*, *Pompon*, and single Dahlias from Messrs. J. Cheal and Sons, Crawley; hardy flowers from Mr. Amos Perry, Winchmore Hill; Dahlias, &c., from Messrs. W. Cutbush and Son, Highgate; Dahlias from Mr. J. T. West, Brentwood; and from Messrs. T. S. Ware, Limited, Feltham. Mr. Heming, the superintendent of the park, set up a large circular group in the centre of the hall, and an imposing bank of plants fronting the orchestra. A special gold medal was awarded to Mr. Heming.

The second town show was at Longton, Staffs., in the very heart of the Staffordshire Potteries. A favourite flower with very many of the working men is the Dahlia, and in order to afford them an opportunity of exhibiting in public the flowers they produce the Longton Dahlia, &c., Society was formed, and the first exhibition of the society was held in the Town Hall on the 12th ult. In addition to Dahlias there were prizes for other plants, for fruit and vegetables, also for the produce of working men's gardens. Mr. Peter Blair of Trentham, who judged the vegetables, was emphatic in praise of their high quality and the great care exercised in their cultivation. It is sometimes said—often as the result of a too hasty deduction—that the show type of Dahlia is going out of cultivation. It is quite certain that this is not so at Longton, and also in many other manufacturing localities. In the Longton Town Hall one could see a very large preponderance of large, finely moulded blooms of the show type, and I was as much surprised at their high quality as at their numbers. Unfortunately, the day being wet and the atmosphere heavy, with light admitted on one side only of the hall, the task of judging was a somewhat difficult one, as many of the stands had to be carried to the light. I awarded as many as thirteen prizes to one class for six blooms of show Dahlias, which gives some idea of the extent of the competition. The symmetry and evenness of the blooms were remarkable. Some excellent blooms of *Cactus* varieties, shown on boards, were also staged, and some pretty *Pompons*; evidently the single varieties are but little valued. Vases of Dahlias made a pretty feature, and there were some well-grown plants of

Pompon and single Dahlias in pots. If only adequate support be forthcoming, there is no reason why the Longton Dahlia Society should not become an important one in the Midlands. It was interesting to watch the exhibitors scanning the work of the judges. They are evidently not only well acquainted with the properties of the Dahlia, but also with the characteristics which constitute quality in vegetables. R. DEAN.

Obituary.—We regret to learn of the death of Mr. W. E. Boyce, secretary to the Highgate Horticultural Society and the Highgate and District Chrysanthemum Society.

Great autumn show of British fruit.—It is owing to the erection of the Royal Horticultural Society's new hall that the great annual show of British-grown autumn fruit can, for the first time this year, be held in London. The first of this series of annual fruit shows was held at the Crystal Palace in 1894, and was repeated there each year up to 1903, when it was held in the society's garden at Chiswick, and this year we anticipate that an exceptionally large and fine collection of fruit will be brought together in view of the heavy crops all over the country. It should be specially noted that nothing but fruit can be shown at this meeting. The society's fruit committee will sit, but there will be no meeting of the floral and Orchid committees. The schedule of the show invites displays of fruit grown entirely out of doors and also from the orchard house, alike from amateurs, nurserymen, and market growers. In the gardeners' and amateurs' division classes are provided for collections of ripe dessert fruit, including Pines, Grapes, Melons, Peaches, Nectarines, and Plums; for collections of Grapes; and for a collection of hardy fruits generally. Numerous separate classes are given for fruits of every description, both for dessert and for cooking. Special classes for different counties, arranged in groups, for both Apples and Pears are offered for amateurs' and gardeners' competition. The public will be admitted to the show on the 4th inst. at 1 p.m. and at 10 a.m. on the 5th and 6th, and it will be kept open until 10 p.m. on the first two days, closing at 6 p.m. on the third day, and, like its predecessors, will doubtless prove the great progress which has been and is still being made in the cultivation of fruits in Great Britain. The charges for admission are 2s. 6d. on the opening day, and 1s. on the second and third days. Fellows of the society are admitted on showing their tickets.

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.—Subscriber.—Deadly Nightshade (*Atropa Belladonna*).—T. W. Harris.—Wild Guilder Rose (*Viburnum Opulus*).—J. Kift.—1, *Salvia patens*; 2, *Selaginella krasniana* (often known as *S. denticulata*); 3, *Fuchsia splendens*; 4, *Erythrina Crista-galli*.—A. C. R.—An *Artemisia*, but without further information cannot define the species.

Names of fruits.—Mrs. Phillips.—1, Reineette du Canada; 2, Stamford Pippin; 3, Court of Wick; 4, King of the Pippins; 5, Baumann's Red Winter Reineette.—G. H. Heath.—1, Lord Derby; 2, Fearn's Pippin; 3, Newton Wonder; 4, a local variety, not recognised; 5, Pear Maréchal de la Cour. Unfortunately the confier was quite shrivelled, and it is difficult to name without a cone.—C. E. F.—5, Peasgood's Nonsuch; 7, Warner's King; 10, Beauty of Kent (all fine fruits).—J. Y. Z.—1, Pear Forelle; 2, Williams' Bon Chrétien; 3, Beurre Giffard; 4, Seckle; 5, Plum Jefferson; 6, Plum Kirke's.—West Surrey.—1, Ribston Pippin; 2, Margil; 3, Dutch Mignonne; 4, Frogmore Prolific.—Tamworth.—1, Lady Sudeley; 4, Eckville Seedling.—H. W. Walters.—The Grape is Buckland Sweetwater, the Plum Oullin's Golden Gage. Apple No. 1 is Gloria Mundi; 2, Warner's King; 3, Lane's Prince Albert.—W. B. Hartland.—Both the large Apples are true Lady Sudeley, the difference

is probably due to the stocks being different. The small Apple is American Mother (true); it is also known as Mother Apple.

Trees in Bois de Boulogne (W. S. M.).—The tree you mean is *Paulownia imperialis*.

Geum Eweni (WILLIAM COUTTS).—We have noticed a similar malformation this season among many flowers, particularly the Composite, and can only attribute it to the weather.

Laurel leaves diseased (HEDGE).—I could not find any of the maggot-like insects on the Laurel leaves you sent. The latter are attacked by one of the shot-hole fungi belonging to the genus *Cercospora*. Pick off the infested leaves and burn them, and spray the bushes with Bordeaux mixture if sufficient injury is being done to the hedge to make it worth while to do so.—G. S. S.

Wood for rustic work (WALTER WHITE).—The Oak and Birch occasionally produce fine gnarled knots upon their stems and branches, both of which are valuable, when properly selected, for constructing bridges over small streams, seats beneath trees, summer houses, and such-like structures which have a place in woodlands. Select suitable pieces of the branches with proper bends, and when dry store them away in a well-ventilated shed to season and be ready when wanted.

Begonia Count Zeppelin (H. COWLEY).—We regret that we are unable to give the origin of the budding variety of tuberous *Begonia* Count Zeppelin, but after a close examination of the plants we have come to the conclusion that it is simply a selection from the ordinary tuberous varieties whose ancestors, many generations since, were B. Pearcei, B. boliviensis, B. Veitchii, and B. Daviesi. This last, a particularly dwarf-growing species, has left its mark on many of the compact forms, and no doubt it played a part in the production of the variety about which you ask.

Slugs in garden (M. P. FORSTER).—Salt is most useful, but so much depends upon when it is applied and the kind of soil. We do not advise it in the way you think of using it in the autumn. Your ground being a strong loam, we fear the salt, unless used in large quantities, would do more harm than good. We would prefer using it, say, in February or March, when the earth will be in better condition, being warmer. We would much rather rely on fresh lime and soot applied freely in the autumn, and the ground turned up as roughly as possible. If the lime is placed on the surface, and when pulverised by exposure for a short time, dug in, you will find this effective. There are other aids. Gas-lime is splendid for the purpose. This procured in November or earlier, and a liberal surface dressing given (the lime having been broken as fine as possible), and then dug in, you will not only get rid of slugs, but other pests such as wireworm. As gas-lime used in a fresh state is very strong, it should be exposed on the surface for a few days, and there must be no large lumps. This material is very cheap, and will clear the soil for some years; it also prevents clubbing in Brassicas, and if used with care it is a splendid fertiliser. Early in the spring before cropping the surface-soil should be lightly forked over when dry.

Plants for conservatory wall (W. B.).—Suitable plants that are likely to fulfil your requirements for the position you name are by no means numerous, but of them we should give the first place to the *Camellia*, whose handsome leafage renders it highly ornamental at all seasons, and, in addition, the flowers are very handsome. If you object to the very formal flowers of the old-fashioned type there are several whose blooms are but semi-double. Whether one or more plants will be needed depends upon the size of your structure. One objection frequently urged against the *Camellia* for such a position is its slow rate of growth, a decided drawback if you want the wall covered quickly. In that case you might plant *Abutilons*, as they grow rapidly. If space exists for three they may consist of *Boule de Neige* (white), *Golden Fleece* (yellow), and *Sanglant* (red). *Habrothamnus* or *Cestrum elegans*, with ruby-red blossoms, and its near relative, *Habrothamnus aurantiacus*, in which they are yellow, will form a suitable pair for associating together. Lastly, the stronger growing *Ivy-leaved Pelargoniums* are good wall plants for a greenhouse or conservatory, but a north-west aspect is not a very promising position for them. Whatever subject you may choose, a well-drained border must be prepared for the plants, as they are more satisfactory so treated than under any other conditions.

Particulars of Peaches (R. K., St. Petersburg).—The following are full particulars of the Peaches you name. *Baron Dufour* or *Grosse Madeleine* de Metz (Simon-Louis, 1872).—In season from the middle to the end of August; large flowers, round glands; large deep reddish purple fruit; melting, sugary, and of excellent flavour; strong grower and good bearer. (Kaiser's description.) *Princess of Wales* (Rivers, 1860).—In season at the middle and end of September; large flowers, round glands; fruit large to very large, oval, creamy white, with a slight rosy red cheek; flesh white, melting, sugary, and of excellent flavour; good grower and cropper. *Pourprée hâtive* (of some), *Pourprée* de Normandie—*Grosse Mignonne*.—In season at the end of August and early September; large flowers, round glands; large pale yellow fruits, mottled with red, deep brownish red next the sun; rich, delicate, vinous, and highly flavoured; good grower and cropper. *Pourprée hâtive à grandes fleurs*—Early *Grosse Mignonne*.—In season the middle of August; large flowers and round glands; fruit medium size, thickly marked all over with bright crimson dots, pale red cheek; sweet, very juicy, and vinous; good grower and cropper. *Pourprée hâtive vineuse* (of some) = *Belle Baussé*.—In season the middle of September; large flowers and very small, round glands; fruit medium to large, highly coloured with deep red almost all over; flesh melting, vinous, and excellent; strong growing and free bearing.

Planting Standard Roses (WARWICK).—Standards should not be planted so deeply in the soil as dwarfs, and should always be made firm and secured in some way until well established. There are few things so injurious to newly-planted Roses of this form as the whipping, twisting, and sagging they go through during the

winter unless firmly secured against the influences of wind and rain. As fast as new roots form they are wrenched off by the swaying about. It is easy to manure the surface soil after the Roses have partially permeated it with their roots; in fact, our experience points to many advantages of such treatment. In the first place, if the manure is added at the time of planting the soil is made too rich for the new roots, and a good deal of the fertilising properties of the manure is lost before the roots are able to assimilate it. Early planting, if properly carried out, is a great advantage, and we would recommend it, as then you secure a plant that becomes partially established before hard weather sets in.

Strawberry Keen's Seedling (W. S. KINGLAND).—You would be able to obtain plants of this variety from any of the fruit tree nurserymen who advertise in our columns. It is, as you say, an excellent variety, but has been somewhat lost sight of through the introduction of so many new sorts. Unfortunately, there are several varieties of Keen's, and those who get the inferior kinds soon condemn them, and rightly so. The true Keen's Seedling is one of the most reliable Strawberries for pot culture, and usually sets its fruits so freely that unless thinned early they will be small. For forcing it is all that can be desired. Fresh runners should be planted annually to obtain the best results.

Curious Fuchsia flower (M. M. LAUGHLIN).—The *Fuchsia* flowers sent are both curious and interesting. They are, of course, malformed, and the plant will never be of commercial value. *Fuchsias* raised from seeds saved from varieties often exhibit some deformity in the flowers. In this particular case the sepals are perfect, but the petals, instead of being sessile, or almost so, on the calyx tube are cup-shaped, and borne on long red stalks similar to the filaments in the stamens. As you say that all the flowers are alike the plant will be worth keeping as a curiosity.

Moving ornamental trees (S. H. WILLS).—In lifting and moving large ornamental trees great care is necessary not to cut or otherwise injure the roots in course of the operation, and in order to guard against such a contingency it is well to use digging forks for this work in preference to spades, by which means the risk of damage is lessened to a considerable extent. In planting the trees, if the soil is poor and exhausted, some rich loam should be mixed with it. Spread the roots out well in all directions from the base of the stem, and take care to see that they do not cross or in any way overlap each other. Stake, tie, and fence the trees according to their requirements, and apply a good mulching to prevent a too sudden evaporation. If thought necessary finish by erecting a screen cage of branches around the tree to shelter and break the force of the wind until the roots are established. A very efficient shelter may be erected for this purpose by placing four upright posts in the ground at right angles and at a reasonable distance from the tree. Then by nailing on, say, three or four horizontal rails and warping in a few branches a useful screen can be formed at small cost, and on exposed situations will be found highly beneficial to the trees.

Some good Camellias (ROSE WALTERS).—You will find the following to be a selection of the best varieties:—*White*: *Alba plena*, *fimbriata*, *mathotiana alba*, and *Duchesse De Berri*. *Pinks and Reds*: *Chandleri elegans*, *Comendatore Berri*, *Coradino*, *Dude*, *Henri Favre*, *imbricata*, *Mme. de Strekaloff*, *Reine des Belges*, *Roi Leopold*, *rubens*, *Storij*, *Valtavaredo*, *Wilderi*, and *Mme. A. Verschaffelt*. *Crimsons*: *C. H. Hovey*, *C. M. Hovey*, *mathotiana*, and *Mme. Lebois*. *Striped*: *Fanny Bollis* and *Jubilee*. Grow them in sandy loam with plenty of leaf-mould, and give several applications of Standen's or Clay's Manure during the period of growth. Success in cultivation where the plants are kept in pots or tubs is to be obtained only by perfect root drainage, by exposure in the shade in the open during summer, by constant syringing and spraying, and by keeping the plants well supplied with water. Plants should not be put out before the end of June, and should be returned to the house by October 15. If plants in health do not flower it is because they are too vigorous or too young. The flower-buds are usually completely formed six weeks after the plant has started into fresh growth in the spring. The ordinary time of flowering is from December to the end of March. Flower-buds will fall if sufficient water is not given, and also if excessive variations of temperature are allowed in the plant house; 36° Fahr. are sufficient during frosty weather. Many degrees of frost will not kill the plant, but will cause the buds to drop.

The Egg Plant (WHARFEDALE).—We are not surprised that you did not recognise this plant, as it is comparatively rarely exhibited. The large quantities grown and consumed in France, and the high esteem in which they are held there and in other parts of the Continent for eating, may well suggest the enquiry whether it would not be worth while to grow them at home. Treatment that suits ridge Cucumbers, Marrows, and Tomatoes will suit Egg Plants. The plants, like other members of the *Tomato* family, are rather liable to the attacks of white fly and scale, but in the open air and with cool treatment under glass there is no difficulty in growing them. Few plants yield more fruit for their size than Egg Plants. The most ornamental with the closest resemblance to a pure white, rather small hen's egg is the original common white, but a large number of varieties may be seen in Paris and other Continental towns, and rich-looking purple fruits are sometimes 6 inches long. They are eaten when quite or nearly ripe—stewed, fried or baked, or used for flavouring and thickening soup. Another and original way of cooking the white is to open the fruit at one end, scoop out the pulp or flour-like substance, add bread-crumbs, minced meat, gravy, stock, or butter, and partly cook, then return to the shells, bake slightly so as not to destroy the form, and serve hot. We were years before we liked Tomatoes, and now we consume enormous quantities. It would be singular if we take to growing the Aubergine by the acre.

Growing Iris stylosa (H.).—There is no doubt whatever that this *Iris* requires a thorough baking during the summer, such as it obtains in its natural habitats, and a rather poor soil. We have seen this beautiful plant in

many gardens, but the flowers are more numerous when this treatment is given. At Ventnor it should succeed well. Plant out your bulbs at once, choosing a thoroughly well-drained spot, where they will be sheltered from cold winds. When in bloom put a handlight over the plants if snow or rain storms threaten. We wish its grassy leafage was less vigorous, as it hides the flowers. These cut when about half open are very pretty in a room, and their fragrance is delicate. They appear in winter, and are indeed welcome. Both blue and white kinds are equally hardy. We have seen luxuriant groups even in Midland gardens in warm, sheltered spots.

Spanish Irises (MONA).—Few plants require less culture than the Spanish *Iris*. It will succeed almost anywhere, but not in damp, low-lying, or shady places. Well-drained beds or borders, where the soil is light and warm, are the positions for these bulbs. They should be planted in quantity to get rich effects, and they happily fill a season when the flowers of spring have in a large measure departed, and those of summer scarcely opened. The flower colouring is very beautiful and varied. We saw this year a mass of Spanish Irises amongst bush fruits, and thought the effect very pretty, and these flowers helped to supply the house.

Planting Magnolias (ANXIOUS).—You may plant Magnolias in the early autumn or in spring, just as the leaves are unfolding and the roots becoming active. You must not plant in the winter. Magnolias are not very hardy plants, and if your climate is cold we would wait until spring. It is only in quite the southern counties of England that they may be grown as standards, and the soil must be good if the shrubs are to succeed. Good fibrous loam, to which peat has been liberally added, forms a good soil. Thoroughly incorporate the two materials. Magnolias dislike disturbance at the root, so that the position they are to occupy must be carefully chosen to prevent early transplanting elsewhere. It will pay thoroughly to prepare the ground, as the shrubs will make quick progress and show vigorous life. In the north of England the majority of Magnolias must be grown against a wall, and it is in this position that the evergreen *Magnolia* (*M. grandiflora*) succeeds. Against warm walls lately we have seen superb flowers. No matter what kind is planted, some shelter from keen easterly winds is essential. The early-flowering species, such as the *Yulan* or *Lily Tree* (*Magnolia conspicua*), needs the shelter of a belt of trees, especially to the east. The beautiful *Water Lily-like* flowers resist frost more when allowed to thaw before the morning sun strikes them than when fully exposed to its power. There are so many handsome kinds that it is not easy to give a list of the best without including the whole family. *M. acuminata* is the *Cucumber Tree*, and is very handsome on a lawn; its leaves are large, and the yellowish flowers fragrant. *M. conspicua* blooms quite early, before the leaves have expanded. It is one of the most beautiful of all, and there are varieties of it—*soulangeana*, flowering a little later and stained with purple, and *nigra*. *M. grandiflora* is best upon a wall. *M. macrophylla* has very fine leaves, and is worth growing on that account. *M. stellata* is a pretty early-flowering bush, its flowers white and starchy; and there is also a bluish-coloured form, which, however, is rarer. *M. parviflora* and *M. Watsoni* are the newer kinds of promise. If you wish to do the above list you may include *M. tripetala*, *M. obovata*, *M. hypoleuca*, *M. Fraseri*, *M. glauca*—a very handsome kind—and *M. Campbelli*.

TRADE NOTES.

TRANSFER OF SCOTTISH NURSERY BUSINESS.

The business of Messrs. Cardno and Darling, nursery and seedsmen, Aberdeen, has been acquired by the well-known firm of Messrs. William Smith and Son, nursery and seedsmen, Aberdeen. The amalgamated businesses will be carried on at the Exchange Seed Warehouses, Hadden Street, and at 26, Guild Street, Aberdeen. The transfer is interesting on account of its marking the reunion of a former combination after a lapse of about fifty years. In the early part of last century the firm was that of Messrs. Smith and Cardno. About the middle of the century the firm was dissolved, Mr. Smith, in association with his son, beginning business as William Smith and Son, and Mr. Cardno, in partnership with Mr. Thomas Darling, carrying on business as Cardno and Darling.

ANT. ROOZEN'S BULBS.

A COMPLETE collection of useful bulbs for the garden is enumerated in the autumn catalogue issued by Messrs. Ant. Roozen and Sons, Overveep, Haarlem (agents for Great Britain, Mertens and Co., St. Mary-at-Hill, E.C.). As well as all sorts of bulbs, the catalogue contains extensive lists of many hardy and tender plants, and will well bear perusal by all intending purchasers.

CATALOGUES RECEIVED.

Fruit Trees and Roses.—Messrs. George Bunyard and Co., Maidstone.

Carnations and Picotees.—Mr. Hayward Mathias, Thames Ditton, Surrey.

Bulbs.—Messrs. Baker's, Wolverhampton; Amos Perry, Winchmore Hill; James Cocker and Sons, Union Street, Aberdeen; Barr and Sons, King Street, Covent Garden; T. S. Ware, Limited, Feltham; Samson and Co., Kilmarnock.

Autumn Catalogue.—Messrs. H. Cannell and Sons, Swanley; Bruant, Poitiers, France; Peter Henderson and Co., New York; M. L. Späth, Rannschulenweg, Berlin.

Hardy Plants.—Messrs. V. N. Gauntlett and Co., Redruth.

Conifers, Rhododendrons, &c.—The Tottenham Nurseries, Limited, Dedesvaart.

Noctules.—M. Ernest Benary, Erfurt.

Roses.—Messrs. William Paul and Son, Waltham Cross.

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THE GARDEN

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[OCTOBER 8, 1904.]

A GREAT FRUIT SHOW.

THE ROYAL HORTICULTURAL SOCIETY'S
EXHIBITION.

EVERYONE would have been disappointed if the exhibits at the fruit show of the Royal Horticultural Society, which was held in the new hall, Vincent Square, on Tuesday, Wednesday, and Thursday last, had not been of much better quality than at last year's exhibition, for the summer of 1904 has been exceptionally favourable to the fruit grower, while that of 1903 was equally as unfavourable. It is satisfactory to know that rarely if ever has a finer display of fruit been seen at the annual show of the Royal Horticultural Society than this week, and the opinion was unanimous that the show of 1904 eclipsed those of several preceding years. Although many of the fruits were remarkably large, yet on the whole the colouring of the fruits was a more striking feature than their size. It was noticeable in the specimens sent from all parts of the country, the fruits from the Midlands, from the West, and from the North were hardly less richly coloured than those from the Southern Counties.

Competition in most of the classes was very keen, and the judges had a difficult work to perform in making their awards, for there was little to choose between several of the exhibits before them. Without in any way belittling the importance of the splendid collections of hardy fruit shown by nurserymen and others, we may say that a great deal of interest deservedly centred in the displays of orchard house fruits shown by Messrs. Bunyard and Co. and Messrs. Rivers and Son. The Apple trees in pots of Gascoyne's Scarlet Seedling, the fruits in baskets of the same variety, and the Marguerite Marillat Pears from Messrs. Bunyard, and the pot trees of Plum Transparent Gage, the fruits of Cox's Orange Pippin, Peasgood's Nonsuch, and Ribston Pippin Apples from Messrs. Rivers were alone worth a visit to the show. The trees of Apple Gascoyne's Scarlet Seedling and Plum Transparent Gage were models of what fruit trees in pots should be, and proved conclusively the value of this method of growing fruits when rightly carried out. Of fruits grown under glass Grapes were excellent, and so were Peaches and Nectarines.

One cannot visit such a display of home-grown produce, brought from England, Ireland, Scotland, and Wales, without meditating upon

the possibilities of the United Kingdom as a fruit-growing country. But it is an old, old story about the apathy of the farmer, and the methods of the fruit grower; pages have been written pointing out to both where they fail when brought into competition with alert growers in other parts of the world, and perhaps, at last, the truth of what has so long been urged is beginning to be realised. Be that as it may, there is no doubt that such a splendid display of British-grown fruit as was exhibited through the agency of the Royal Horticultural Society this week must bring home to the minds of all thinking people that we are not surpassed as a fruit-growing country so far as the quality of our produce is concerned. It is lamentable that the attendance of the general public was so poor. How strange that with such a splendid exhibition of home-grown hardy fruit on view in the heart of London, Covent Garden should be crowded with foreign importations of Apples, all commanding a ready sale!

At the luncheon given to the judges and others on Tuesday afternoon, Sir Trevor Lawrence referred to the good quality of the exhibits, and eulogised the skill of the fruit growers. Sir Daniel Morris, Imperial Commissioner for Agriculture in the West Indies, and formerly treasurer of the society, was present, and expressed the pleasure it gave him to be at the first fruit show in the new hall.

GOOD ORCHARD APPLES.

In these days of dwarf stocks, bush trees, and quick returns perhaps there is a tendency to overlook the value of the permanent orchard formed of standard trees on grass, which for generations has been an institution closely associated with British homesteads. It is to be hoped, however, that this is really not the case, for after all has been said in favour of growing Apples and Pears on dwarfing stocks with the object of securing quick returns, it must be remembered that an orchard is a permanent institution, and, when once established, it will, with reasonable care, continue to give a return for an indefinite period. There is no lack of evidence in support of this contention, for look where you will old orchards and old trees may be seen still in a state of bearing, though the men who planted them have long since passed away. We know that many of the old trees are of varieties which will not pass muster in these days, but for this no blame can be attached to the planters, who had to make the best of the meagre facilities they had when little heed was paid to varieties, fruit nurseries were comparatively few, and the

common method of propagating Apples was to raise the trees from seeds.

Still some of the old planters were aware of the advantage of growing good varieties, and the owners of many a giant Blenheim Orange tree to-day have to thank their forbears for their wisdom in planting the above variety, veteran specimens of which still continue to give good returns. I can look back thirty years and remember an orchard in a Midland shire containing several Blenheim Oranges and a few other good varieties, which are now in general cultivation. At the time I speak of the trees were considered to be old, and they certainly had a venerable appearance. They were planted in the first place by a man who was considered to be a local crank on Apples, and his neighbours laughed at him because he was not content to grow the local varieties of the district; but he knew what he was doing, and if he did not make much out of the orchard in his lifetime he always had a good Apple for his own consumption, and thirty years ago the then occupier of the orchard was envied by his neighbours for the price he always made for his Blenheims. The years which have intervened have not, of course, improved the appearance of the trees, which are now old and gnarled, but they still continue to bear fruit which would not pass through the ring provided to limit the size of fruits exhibited in the dessert class at the annual show of the Royal Horticultural Society.

But in these days we do not want to be contented entirely with the relics of a previous generation, or what should we have to leave for our successors? We need, on the other hand, to continue planting and establishing orchards on the best and most modern principles, making the most of the facilities at hand. Somehow a fruit orchard seems to be a natural adjunct to a country homestead. It a mansion or a farmhouse, and as years roll on and one watches young trees develop into sturdy specimens a tender sentiment seems to attach itself to each individual tree. This sentiment clings, and when one hears of a man scorning the idea of cutting down an old veteran, purely on account of the associations surrounding it, one can understand it, for, after all, the feeling is natural.

As the season for planting is approaching would-be establishers of orchards should consider the conditions under which they are working, particularly in regard to varieties. Good trees of the best sorts can now be obtained at such a trifling cost that no one would think of planting a poor variety. It is not sufficient for the purpose of orchard planting to make a selection from specimens seen at a show or exposed in a fruiterer's window, as the man who plants an orchard is doing something for posterity as well as for himself, and should therefore confine himself to the varieties suited to the purpose he has in view. The other day I heard a man bemoaning the fate which induced him to plant a number

of trees of Stirling Castle in his orchard some years ago on the advice of a friend, who assured him that it was a good Apple. Of course, it is a good Apple—everyone knows that—but not for an orchard standard, and the trees in question were fruit-laden and stunted, and can never make fine specimens. The result is that they will have to come out, other varieties must take their place, and the time which has intervened is practically lost. Lane's Prince Albert is another good Apple which is usually disappointing as an orchard standard, as it does not make a good head, though it answers well for grafting upon an established tree which has been headed back. These peculiarities of varieties are matters which should be carefully considered before selecting trees for making a permanent orchard, because through having the right thing in the right place at the outset waste of time and personal disappointment may be avoided.

There is naturally a difference in the conditions under which standard trees are grown in an orchard and bushes in a garden, and consequently vigour of constitution should be considered when making selections of varieties for the former style of culture. I have mentioned one Apple that can be depended on, namely, Blenheim Orange, and though it may be a long time coming into bearing, when it does arrive at that stage it will continue fruitful for a very long period. Bramley's Seedling is another Apple which has come rapidly to the front of recent years for orchard planting, and as a late keeping culinary variety it has no superior. Newton Wonder, said to be a cross between Blenheim Orange and Wellington, is another of the modern varieties which have made reputations for orchard work, and it is certainly a fine Apple. To mention a few others which may be relied on, we have Warner's King, Golden Noble, Beauty of Kent, Tyler's Kernel, Bismarck, Wellington, and Warner's King, while Worcester Pearmain, Devonshire Quarrenden, Cox's Orange Pippin, and other dessert Apples may be accorded places in orchards where soil and situation are fairly favourable.

Another point worth considering is that of distributing the varieties so as to make the most of the space and at the same time avoid overcrowding. Comparatively few people have the courage to plant trees 10 yards apart, but they give them much less space and excuse themselves on the grounds that alternate specimens will be cut out before they overcrowd each other. Sometimes the thinning is done, but more often it is not, as courage is certainly wanted to cut out a tree when it has only just arrived at a state of good bearing, and the result is that overcrowding is a standing evil. The proper course is to give plenty of room at the outset and allow for the filling up, but the habits of the trees should be studied. Varieties of spreading growth, like Bramley's Seedling, should not be planted together, as they are sure to grow into each other, but if such sorts as the above are planted alternately with varieties of upright habit there is no such danger, as the tendency of one is to grow upwards and the other outwards. Finally, let it be remembered that if a thing is worth doing at all it is worth doing well, and not even the most trivial should be scamped. Select for the orchard a suitable site, have the land drained if it holds stagnant moisture, take out wide holes and break up the soil well before planting, spread out the roots evenly and cover them with not more than 3 inches of the best soil, stake firmly, do not allow the grass to grow over the roots for the first few years. Above all things protect the stems so that there is no fear of damage by

horned stock, though a better plan is not to allow anything bigger than a sheep to graze in a young orchard. If these points are considered, good trees are planted, and due attention is given, Nature will not fail in her part, and the man who establishes a young orchard may live long enough to reap a good reward himself and pass something on to his heirs.

G. H. H.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

- October 12.—Royal Botanic Society's Show.
 October 12.—United Horticultural Benefit and Provident Society's Annual Dinner, Mr. W. A. Bilney in the chair, 6.30 p.m., Holborn Restaurant.
 October 18.—Royal Horticultural Society, Meeting of Committees, 12 noon.
 October 25.—Croydon Chrysanthemum Society's Show (two days).
 October 27.—Exmouth Chrysanthemum Show.
 November 1.—Bournemouth Chrysanthemum Show (two days); Brighton Chrysanthemum Show (two days); Royal Horticultural Society.
 November 2.—National Chrysanthemum Society's Show at Crystal Palace (three days); Southampton Royal Horticultural Society's Show (two days); Highgate Chrysanthemum Show (three days); Lowestoft Chrysanthemum Show (two days); Portsmouth Chrysanthemum Show (three days).
 November 3.—Weybridge Chrysanthemum Show; Colchester Chrysanthemum Show; Forest Gate Chrysanthemum Show (three days).
 November 4.—Windsor and Eton Chrysanthemum Show; Butterssea, Clapham, and Wandsworth Chrysanthemum Show (two days); Hineckley Chrysanthemum Show (two days).
 November 5.—Bately and District Chrysanthemum Show; Loughborough Chrysanthemum Show; Penarth Chrysanthemum Show; North Lonsdale Chrysanthemum Show.
 November 8.—Ipswich and East of England Horticultural Society's Show at Ipswich (two days); Dulwich Chrysanthemum Show (two days); Sevenoaks Chrysanthemum Show (two days); Southend Chrysanthemum Show (two days); Stoke Newington Chrysanthemum Show (two days).
 November 16.—Liverpool Horticultural Association Chrysanthemum and Fruit Show (two days).

Hardy flower combinations.—It often happens that the best effects in the flower garden result from the association of familiar and easily grown plants, and it is equally true that the most beautiful flowers are not properly appreciated if they are injudiciously placed. As an instance of the former I may mention a very happy planting together of *Aster Amellus* *bessarabicus*, probably the finest and best coloured of this section of the Michaelmas Daisy and *Aster Linosyris* (Goldilocks). The blue-purple of the first named and the yellow of the latter produced a pretty picture, and made quite a feature in the border in which they formed an item. There was a group of each planted side by side; the blue and yellow did not mingle indiscriminately. Another happy association of blue and yellow worth mentioning is obtained at this time of year by planting *Crocus speciosus* and *Sternbergia lutea* major. In Mr. Leopold de Rothschild's garden at Gunnersbury House these two bulbs are planted in grass beneath *Araucaria excelsa* and make a delightful display. Another flower combination for September may be had by planting Tiger Lilies among white Japanese Anemones; the scarlet flowers and the red-brown stems of *Lobelia Queen Victoria* are also very effective among the pure white, gold-centred flowers of the Anemone.—Y. Z.

Some good autumn plants.—*Senecio Clivorum* and *Silphium laciniatum* are very effective when planted by the waterside. In the Gunnersbury House Gardens, Mr. Hudson has boldly grouped these plants, and at the present time they are a striking feature on the lake margin. As seen from the opposite side of the water their bold

foliage and rich yellow flower-heads add colour and dignity to the garden landscape. Both belong to the natural order Compositae, which is so largely represented by plants in flower during late summer and early autumn. *Silphium laciniatum* is commonly called the Compass Plant, because in its native habitat—the prairies of North America—the leaves are said to preceat their faces north and south. Other good plants now flowering well at Gunnersbury are *Salvia splendens* nana, which makes a blaze of scarlet on a roof, and *Tropæolum Fireball*. The *Tropæolum* is planted in boxes placed on the edge of the lower part of the house, and the growths hang down for several feet, draping the sides of the building and making a curtain of red and green. I have never seen a *Tropæolum* used more effectively. *Helenium macrocephalum grandiflorum* is an excellent plant for the back of a large herbaceous border, and *Kochia scoparia* for the front. The latter plant is rarely seen in gardens, but it is well worth growing. In summer the pretty foliage is a light and very pleasing green, while at this time of year it turns bronzy red. Groups of it near the front of the mixed border add variety and interest as well as a certain beauty. At Gunnersbury, Mr. Hudson has planted autumn-flowering Lilies very extensively. The beds of *L. speciosum* *Melpomene*, *L. s. Kratzeri*, and *L. s. novum album* are very fine; so, too, are those of *L. tigrinum* *Fortunei*. Is this variety synonymous with *L. t. giganteum*? I can see no difference; it is certainly taller than *L. t. splendens*. What a pretty flower *L. s. novum album* is. The petals are a clear white, and the anthers bright yellow. In *L. s. Kratzeri* the anthers are orange-yellow, and, to my mind, the flower of *novum album* is the prettier of the two, although *Kratzeri* is a more satisfactory plant to grow.—Y. Z.

Mr. James Whitton, Superintendent of Glasgow Parks.—Mr. James Whitton is the subject of a well-drawn sketch which has just appeared in one of a series being published by the *Glasgow Evening Times* under the title of "Prominent Profiles." The writer of the notice says: "Mr. Whitton has had much to do—the restoration of the Green, Kelvingrove Park, and the Botanic Gardens after they had been upheaved by the Central Railway operations, and the laying out of the Springburn, Ruchill, Bellahouston, Tollcross, and Richmond Parks, and other open spaces which have been added to the recreation grounds of the citizens in recent years, while he has just completed the restoring of the site of the 1901 International Exhibition in Kelvingrove Park to the condition in which it was before that great undertaking." Reference is also made to the bowling-greens, ponds, and golf courses laid out by Mr. Whitton, and his work generally receives kindly notice.

Metrosideros floribunda.—What a showy plant this is when seen in good condition, and a first-rate climber for the south front of an ordinary greenhouse. At Westwick Hall, near Norwich, I lately saw several fine plants thickly studded with the bottle brush-like flowers. The rich crimson-magenta blossoms are distinctly attractive and last a long time.—E. M.

Aster Finchley White.—This is quite the best white-flowered Aster I have yet seen. It grows but 2 feet 6 inches high, and produces huge pure white flowers measuring 2 inches or more in diameter. The florets are slightly cup-shaped, with a bright yellow disc. It is of desirable growth, and the flowers are pure white and massive in appearance.—E. M.

Aster Perry's Favourite.—When placed before the floral committee of the Royal Horticultural Society this Aster was described as a seedling from *A. Amellus*, and as such it received an award of merit. It deserved this, as I consider it is a distinct break in colour in that section. I think it would more properly be described as a form of *A. Amellus* *bessarabicus*, which it much more resembles. The growth is taller and not so compact as in the type *Amellus*, which is quite distinct from *bessarabicus*. With me the latter will grow 3 feet high, and so will *Perry's Favourite*, but not so *Amellus*, which is just half that height.—E. MOLYNEUX.

Fuchsia Bright's Delight.—There are in cultivation Fuchsias having pink corollas, but I know of nothing so distinctly novel in this way as the variety named above. It was exhibited at a recent exhibition at Reading, where it was awarded a certificate of merit on account of its novelty of character. The tube and sepals are white, the corolla soft pink—a real pink; the habit of growth is compact, and it is very free blooming. It was raised by Mr. C. Bright, a gardener at Reading, who grows and exhibits very fine specimens of Fuchsias. It promises to make an excellent market variety, and of its value for exhibition purposes there can be no doubt.—R. D.

Single Cactus Dahlias.—Though there are some charming varieties among the group, it can scarcely be said of them that they have hit the popular fancy; and yet to see them growing one readily understands their value for border decoration, for they are of fairly dwarf and compact growth, and remarkably free of bloom. Messrs. Dobbie and Co. of Rothesay, who make a speciality of this type, catalogue nearly forty varieties, a few of which they staged at the last meeting of the Royal Horticultural Society, but they had evidently suffered during the long journey from Rothesay. A good half-dozen will be found in Amy Robsart, bright scarlet, the florets twisted and curled; Feneila, crimson, deep orange, and pink; Ivanhoe, bright rose, with a crimson band round the yellow centre—one of the very best; Meg Merrilees, clear yellow with twisted florets; Novar, crimson-purple, shading to magenta; and Sir Walter, rosy pink, with deep orange disc, the florets much twisted.—R. D.

A new Pear.—This season our best early autumn Pear is undoubtedly the new Michaelmas Nelis, which is not very well known. It is not a large fruit, but quite large enough for dessert. For good quality it is difficult to beat; indeed, as a late September and early October Pear I do not know one better. It may be termed an early autumn Doyenné du Comice. My notes only refer to trees grown as cordons, but my experience is that a good cordon invariably makes a good bush or pyramid tree. Very small trees fruit freely, so that it promises well, and it grows freely. I have referred to its quality, and this season it is very good indeed. The fruits may be termed under medium size, and are very sweet and juicy. They are in season at Michaelmas. We have no lack of early Pears, but none too many of first-rate quality, so that this new one will be welcome. I think it will prove a fine grower in any form.—G. WYTHES.

Apple Worcester Pearmain in 1904.—In some seasons different fruits vary greatly in quality. Much depends upon the season, the soil, and the time of gathering. This year Worcester Pearmain is greatly superior in size, colour, and quality to those of the last two seasons, and there is no question whatever as to its crop, as this variety rarely fails even in adverse seasons. I think in such seasons as this it is difficult to beat. Growers of this Apple, which was sent out thirty years ago by Messrs. Smith of Worcester, do not require any information as to its market value. To the private grower it is most valuable, but it varies greatly even in the same garden. Our best fruits are produced from small standard trees. I much prefer this form to bush trees. Those on the Paradise stock do not fruit so freely with us, but, as previously stated, this may be quite the reverse elsewhere.—G. WYTHES, *Middlesex*.

North British Railway station gardens.—The awards of the annual premiums offered by the directors of the North British Railway Company for the best-kept stations on their lines have just been issued. The total sum offered is £400, divided into 200 prizes in four classes, the premiums being as follows: First class (20), £4 each; second (40), £3 each; third (60), £2 each; fourth (80), £1 each. Arrangements are made by which those who have been in the higher classes cannot take a premium in the same class for more than a certain number of times in succession. The following are the twenty stations in the first class, with the names of the stationmasters: Aberlady, Mr. Yorkston; Ayton, Mr. Spence; Blackford Hill, Mr. Cunningham; Blairhill and

Gartsherrie, Mr. M'Kelvie; Burnmouth, Mr. Watt; Causewayhead, Mr. M'Lean; Chirnside, Mr. Christison; Craigenordan, Mr. Whyte; Dalmuir, Mr. Sheddon; Drelton, Mr. Watson; Eskbank, Mr. Thomson; Glenfarg, Mr. Brown; Grantshouse, Mr. Thornburgh; Junction Road, Mr. Campbell; Kirkandrews, Mr. Gourlay; Kirkintilloch, Mr. Ferguson; Morningside Road, Mr. Cullen; Rothbury, Mr. Renton; St. Fort, Mr. Bathgate; Tyndrum, Mr. Robertson.

Statice sinensis.—With the exception of the well-known blue-flowered *S. sinuata* and the yellow *S. Bonduelli*, along with the other annual *Suworowi* and one or two perennials, including *S. tartarica*, the Sea Lavenders are not met with so often as they might be. The present species often goes under the name of *S. Fortunei*. It has been in cultivation for over half a century, and is well worth growing. Treated as an annual and raised early in the year in heat and planted out when large enough it will begin flowering in September. If sown the previous autumn it will come into flower earlier in the year. It is a light, graceful plant, growing about 2 feet or 3 feet high, with freely branching twiggy stems, ending in myriads of small yellow flowers. The everlasting character of these make them valuable for house decoration when cut and used for that purpose.—W. I.

Show of Colonial fruit, preserved fruits, and jams.—The winter show of the Royal Horticultural Society, which will be held in the society's new hall, Vincent Square, Westminster, on December 13 and 14, will be confined to Colonial-grown and to preserved fruits. Classes are arranged for all descriptions of Colonial fruits, and the preserved fruits include jams, as well as bottled and dried fruits, separate classes being arranged for home, Colonial, and foreign exhibits, the comparative value of which will thus be seen side by side. The December show will remain open on both days until 10 p.m., so as to give all classes of the public an opportunity of seeing specimens of the varied products of the British Empire. The Agents-General and Crown Agents are most kindly rendering every assistance, and we trust that both growers and exporters will do their best to send in exhibits worthy of our Colonies, and to show what can be produced for the home markets. No entrance fee or charge for space is made, and if desired the produce may be consigned direct to the society, and it will be stored in the cellars at Vincent Square and staged by the society in good time for the special private Press view on the evening of December 12, but the society cannot undertake to repack and return such exhibits. We further learn that a second show of Colonial fruit will be held in March or April, 1905, with a view to showing such fruits as cannot be shown in perfection in December. Copies of the schedule and entry forms may be obtained on application to the secretary of the Royal Horticultural Society at Vincent Square, Westminster.

Scutellaria Ventenatii.—Though introduced from Columbia just sixty years ago, this *Scutellaria* has only within the last few seasons had any special attention directed to its merits as a flowering plant for the warm greenhouse throughout the greater part of the year, but especially during the summer and early autumn months. It is, however, very useful, especially where a display of flowers has to be kept up at all seasons, for its cultural requirements are not at all exacting, and its bright coloured blossoms are always welcome. It is a soft growing, freely branched plant, in general appearance not unlike a *Salvia*, and if stopped when young it forms a neat little specimen about 18 inches high. The deep scarlet flowers, which are produced in erect terminal racemes about 6 inches long, are somewhat tubular in shape, and individually small, but borne in great profusion. Cuttings of the young growing shoots strike root very readily during spring and early summer. Of the other tender species the best is *S. mociniana*, a native of Mexico, from where it was introduced in 1868. This is more upright growing than the preceding, the tubular-shaped flowers $1\frac{1}{2}$ inches long, in colour scarlet outside and yellow within, being borne in large terminal heads. This must

not be stopped too freely, as three sturdy shoots each with a fine head of blossoms are most effective.—H. P.

Lilium tigrinum jucundum at Kew. This form of the Tiger Lily has flowered well during the present season at Kew, and as seen there it certainly merits a place among the most select of outdoor Lilies. One marked feature in which it differs from all the other varieties of this species is in the absence of small bulbils in the axils of the leaves which are so numerous in the other forms. The stem, too, is more slender, and the leaves narrower and longer, while the flowers are of a bright orange-red with numerous small dark brown spots. It is fairly prolific in names, being known beside the above as *Lilium pseudo-tigrinum*, *L. Maximowiczii*, and *L. Leichtlini rubrum*; indeed, it may be sometimes seen referred to as a red *Leichtlini*, but it is certainly far more nearly related to *L. tigrinum*. At Kew there was a favourable opportunity to compare these two Lilies, as *L. Leichtlini* was flowering in close proximity to the bed of *jucundum*. Other varieties of the Tiger Lily worthy of note are *splendens* or *Leopoldi*, characterised by fine bright coloured flowers with larger spots than in the ordinary form, while the stems are dark coloured and quite smooth. A good example of a double flowered Lily is furnished by *L. tigrinum flore-pleno*, whose petals overlap in a regular manner, but for beauty it cannot to my mind at least compare with the single kinds. Last to mention and last to flower is the bold growing *Fortunei*, with pyramidal heads of rather light coloured flowers. The excessive woolliness of the stem and young leaves is a notable feature of this variety.—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, 3, Southampton Street, Strand, London.

TWO NEW CARNATIONS.

Mr. W. A. Watts writes from Bronwylfa, St. Asaph: "I am sending you a few blooms of two of my new Carnations, Mrs. Kearley (blush-coloured) and The Master (scarlet). They were each awarded a certificate of merit at Shrewsbury by the Shropshire Horticultural Society last month. The blooms I send are only small ones, but you will understand that they are from side stems; as it is late in the season there are many buds still to open."

[Two varieties of distinct colouring and unusually strong, non-bursting calyces.—Ed.]

SOME AUTUMN PINKS.

From Messrs. Ladhams, Limited, Shirley Nurseries, Southampton, we have received a gathering of Pinks, delightful so late in the year, and quite as fresh and bright as those of June. These perpetual-flowering varieties of the Pink, of which Messrs. Ladhams recently exhibited an excellent group, are most acceptable in the garden at this time of year.

BELLADONNA LILIES FROM GUERNSEY.

Messrs. Charles Smith and Son, Caledonia Nursery, Guernsey, have sent flowers of several varieties of *Amaryllis Belladonna*. Perhaps the finest of all is *purpurascens maxima*, of which we gave an illustration some months ago. The flower-stems of this were 18 inches long, and Messrs. Smith inform us that before sending them 15 inches



THE IRIS WALK IN THE EARL OF ONSLOW'S GARDEN AT CLANDON PARK.

were cut off, so that the full length of the stems was 33 inches. The flowers are deep rose coloured. Other varieties sent besides the typical form were *blanda* (rosy pink and white, sweetly scented) and *rosea perfecta* (rich deep rose, sweetly scented), altogether a delightful boxful of these autumn flowers.

EUCALYPTUS GLOBULUS IN FLOWER.

Mr. Cuckney sends from the gardens, Cobham Hall, Gravesend, shoots in flower of this well-known Eucalyptus. They were cut from a plant in a pot in an Elizabethan orangery, but it is the shoots that have been allowed to reach the open air that have flowered. This is the second year it has bloomed in this way.

GIANT BULBS OF GALANTHUS ELWESII.

From King Street, Covent Garden, Messrs. Barr and Sons send some very large bulbs of this Snowdrop, more like those of Tulips than Galanthus, with this note: "We are sending you here with a sample of remarkably large specimen bulbs of Galanthus Elwesii, together with a sample of the ordinary size. The bulbs are imported from Asia Minor, and we send them just to show you the great size that this variety of Snowdrop is capable of attaining."

ZEPHYRANTHES ATAMASCO.

Mr. S. W. Fitzherbert writes: "I supplement *Zephyranthes Andersoni*, which I sent you a short time ago, with *Zephyranthes Atamasco* and *Z. candida*, the first named being the larger of the two."

GIANT HELIOTROPE.

"I am sending you a few heads of giant Heliotrope for your table." [Very handsome and of good colour.—Ed.] "I consider it one of the finest bedders that we have, and it deserves a place in every garden. It is of easy culture, and grows freely in a compost of loam, decayed leaves, and sand. I sow the seed in spring on a slight hotbed, where it germinates very freely. When large enough to handle I prick out or pot the seedlings, and plant in the open in early June. This Heliotrope grows about 2 feet high, and is of branching

habit. I have grown it for several years, and it is always much admired. I find it to be neither satisfactory in pots nor when grown from cuttings. —E. HAYWOOD, *Bryn-y-pys Gardens, Ellesmere, Salop.*"

EARLY CHRYSANTHEMUMS FROM A CITY GARDEN.

Mr. E. B. Handley writes from Greenfield Crescent, Edgbaston, Birmingham: "I am sending you for your table a few early-flowering Chrysanthemums gathered from my small garden within a mile of the centre of the city. I have no doubt that the varieties will be easily recognised by you, but I have just ventured to label them. The Aster which I enclose is a self-sown seedling that I found."

[The Chrysanthemums included *Carrie*, lemon-yellow; *Mrs. A. W. Willis* and *Bronze Bride*, bronze; *Polly*, orange; and *Goacher's Crimson*. The Aster, evidently an *Amellus* variety, is of good colouring, deep rose-purple.—En.]

HYBRID TREE CARNATIONS.

Mr. Hayward Mathias, Thames Ditton, Surrey, writes: "I send you blooms of my new hybrid seedling Tree Carnations, which have resulted from cross-fertilising the best English varieties with the best of American introductions. Out of more than 600 seedlings I have selected about eighteen varieties worthy of further cultivation, some of which are among those I send you. The flowers are rather small, being chiefly side blooms, but some idea as to their form and colouring is obtained from them. I have been trying for several years to produce a distinct class of Tree Carnations, that is, varieties resembling the American in size with the English form of petal, with a more robust habit of growth. The American Carnation is, without doubt, a very lovely strain. The flowers of most of the varieties introduced measure quite $3\frac{1}{2}$ inches to 4 inches across, while for decorative purposes I consider so far they are unequalled. Owing to the petals of most of them being serrated, they are not so popular as they deserve to be. The English notion of an ideal Carnation, whether it be a tree or border variety, is a perfectly smooth-edged petal. I quite agree with this being the chief point of an exhibition border variety, but in Tree Carnations grown for decorative purposes I consider a slightly serrated petal rather adds to than mars the beauty

of the flowers. However, you will note that I have been fairly successful in my endeavours."

[The flowers sent by Mr. Mathias bear out what he says about them. There is no doubt a good deal to be done in the direction in which Mr. Mathias is a pioneer. Some of the best of those sent by Mr. Mathias are *Rubeus*, rich bright rose; *Firefly*, a bold and handsome salmon-red flower; *Ajax*, dark ruby-red, sweetly scented; *Calliope*, purple; *Diadem*, rich rose; *Circe*, white ground, flaked with dark crimson; *Cherry Girl*, salmon-red ground with scarlet flakes; *Thunder Cloud*, rose and slate blue; and *Fairy*, buff ground, flaked with bright red.—Ed.]

MAURANDIA BARCLAYANA OUT OF DOORS.

We have received the following interesting letter concerning the outdoor culture of this *Maurandia*, together with flowering sprays of this and *Solanum jasminoides*: "I saw in your issue of the 10th ult. a notice of *Maurandia barclayana* flowering in a sheltered position in a southern aspect and unprotected in winter. I venture, therefore, to enclose you some sprays I have just picked from south and east walls of my house here. They were sown three years ago and planted out, and have since been left to take care of themselves. They are now flowering in a tangled mass with *Solanum jasminoides* at a height of 12 feet or 14 feet. The *Solanum* I enclose, too, has gone right up to the roof, and is a wealth of blossom

in both south and east aspects, and is never protected in winter.—LAURA WARWICK, *Birchlands, Englefield Green, Surrey.*"

NOTABLE GARDENS.

GRIMS DYKE.

THIS, the seat of Mr. W. S. Gilbert, is situated in a secluded spot between Harrow Weald, Pinner, and Stanmore. The grounds are quite naturally laid out, and their beauty is much enhanced by the dyke and water-courses that exist, and from which the place takes its name. The largest sheet of water is surrounded by an irregular walk, which affords an interesting view of the plants that thrive on the banks. In the centre is a large island planted with *Rhododendrons* and *Bambusa Metake*. Many of the hardy *Nymphaeas* have made large patches and flower profusely. There are also clumps of *Bulrushes*, *Spiraeas*, &c. From this pond the water falls into others, parts of which are beautified in a similar manner. Although much of the work has been carried out recently by the present head gardener, Mr. Fulton, one would hardly take the grouping to be artificial, so cleverly has it been planned and carried out. Vistas open up many charming views of the surrounding country. On leaving the pleasure grounds grassy walks fringed with Bracken lead in all directions to the adjoining woodlands and form a delightful feature.

The glass houses are situated inside a partly walled kitchen garden. The stove contains some well-grown plants of *Ixora Duffii*, *Williamsii*, *coccinea superba*, and *Westii*, all in full bloom, and some well-grown and finely-coloured *Codiaeums* were as good as could be wished for. Melons are largely grown; those ripe and approaching ripeness were excellent fruits. The Vines were bearing very fair crops, but the vineries are not ideal for first-class Grape culture. Good crops of Peaches and Nectarines were noticeable, both under glass and outside upon south walls. The Pear crop upon walls outside is very regular, especially good being *Clapp's Favourite* and *Doyenné du Comice*. The vegetable quarters are well managed, and excellent crops are seen throughout. In the orchard standard Apple trees were bearing abundantly, such varieties

as Lane's Prince Albert, Golden Noble, Tower of Glamis, Worcester Pearmain, and Bramley's Seedling being loaded with fruit. The flower garden, although not extensive, nevertheless is not without interest. The plants are bright and tastefully arranged, and harmonise well with their surroundings. Both Mr. and Mrs. Gilbert take great interest in their garden, and encouragement is given to Mr. Fulton to bring everything to a successful issue.

C. J. E.

THE EARL OF ONSLOW'S GARDEN, CLANDON PARK, SURREY.

THE Earl of Onslow kindly sends several photographs of his interesting garden, from which we have selected two for reproduction, one of the beautiful walk of Irises, and the other of Water Lilies in the lake. The following notes were also sent: "The Iris walk is along the banks of a stream that runs through Clandon Park. After some years' work all the known forms of Iris have been obtained, so that there is a show from February until September, although this year the late-flowering ones were over at the end of August, in consequence of the hot weather. The path leads to the Lily bed, recently made in front of a Maori house, which was brought over by the Earl from New Zealand at the expiration of his term of Governorship."

KNIGHTON, KESTON, KENT.

In the neighbourhood of Keston, Kent, it is hard to realise that one is so short a distance from London, yet, as a matter of fact, this village is only fourteen miles away. Keston village is situated on the crest of a hill more than 400 feet above the sea level, and on the south side the view is varied and beautiful. Away to the south lie the well-wooded Surrey hills, and as far as the eye can reach the country is beautifully undulating. Nestling among the trees of what is known as Leafy Grove is Knighton, the residence of Mr. C. T. Boosey. Gardening at Knighton has been very difficult, partly on account of the shallow soil, but more particularly because of the somewhat precipitous slope of the garden. To overcome these difficulties a series of terraced gardens was formed. The ground had to be cleared and useless and unsightly timber cut down. In this way many of the finer specimens of the original wood were preserved; they have increased in vigour and shapeliness, adding attractiveness to the surroundings. Immediately below the terrace, running level with the house, an interesting alpine garden has been made on the slope leading to the next terrace. Flower-beds are also arranged along the upper terrace garden, in which a good strain of Verbena seedlings were very showy. Beds of Ivy-leaved Pelargonium Mme. Crousse and a pink zonal Pelargonium named Gertrude Pearson made a bright display. In the alpine garden the Androsaces, particularly *A. lanuginosa*, were doing well. The sweet-scented rosy pink *Daphne Cneorum* was flowering out of season, and the tufted growth of *Shortia galacifolia* and colouring leaves were especially good. *Acana microphylla*, Sedums, Phloxes, and other plants made this alpine garden well worth a visit. In the centre of the rock garden is a small pool in which some of the hardier Nymphaeas are growing satisfactorily, as well as the Cape Pond Flower (*Aponogeton distachyon*). On a lower terrace is the tennis court, the slopes of which are planted with British Ferns, and by the free use of rustic timber a natural effect has been obtained.

Recently borders for herbaceous perennials have been made, and others are in course of preparation. Further development of the pleasure grounds are to be carried out in the near future, so that each succeeding season the gardens will increase in size and beauty. Here and

there in the wood hardy Azaleas have been grouped, and in their season provide a welcome piece of colour. Reference has been made to the shallow depth of soil. In the kitchen garden much has been done to increase the depth of soil and to make it workable. A heavy and retentive loam on a chalky subsoil is not one that can be lightly taken in hand, yet notwithstanding these disadvantages the kitchen garden is full of well-grown plants. Fruit on a limited scale is cultivated. Flowers for indoor decorations were to be seen. Sweet Peas in clumps, and such as *Gaillardia grandiflora*, *Coreopsis grandiflora*, so useful for cut flowers, and *Chrysanthemums*, for cut flowers as well as for large blooms, were very good. Mr. Newman, the head gardener, has displayed much skill in the development and management of this garden. D. B. C.

THE FLOWER GARDEN.

THE HERBACEOUS BORDER.—II.

IN my last article I gave a somewhat sketchy description of a herbaceous border, dealing with its general effect; but as I propose treating very fully every detail of this form of gardening I think it will be better to change my programme a little, and say a few words on the preparation of the border. As I remarked in my last article, we have to deal with a variety of different plants, so we must prepare a habitation that shall meet all their requirements. We will suppose that an entirely new border has to be made, and whether this is to be on virgin ground or on soil that has already been cultivated matters little, for it should be entirely reconstructed. Suppose the border to be about 6 feet or 7 feet wide. We begin by removing the soil to a depth of 4 feet, and then we must make a good bed of broken bricks or rubble nearly 1 foot deep, and if possible cover this with a layer of ashes. Then we shall require good soil, composed of equal parts of soil, sand, and burnt garden refuse, 2 feet or 3 feet deep, well mixed with matured farmyard manure obtained from the best possible source. The danger of buying

manure from a farmer who starves his animals, and who does not thoroughly till his ground, is not sufficiently considered. But it is a source of much evil—poor soil and the introduction of wireworm—which once in your garden will work endless havoc. We cannot, as a rule, choose either our situation or our soil, but we can improve the latter gradually and surely by careful cultivation.

Most of the hardy flowers, and more particularly those of a sturdy growth, enjoy a good loam, rather stiff than otherwise, while for the smaller plants and bulbs a lighter soil is desirable. With the addition of sand and leaf-mould a stiff soil can be made suitable, and if, on the contrary, it be too light and dry crushed clay may be added with a larger proportion of manure; but be careful not to make the soil too rich where you intend to plant Daffodils, for they greatly resent gross feeding. Old stumps, stones, and roots of pernicious weeds, like the *Convolvulus arvensis* or Field Bindweed, should be carefully eliminated, a precaution that will save any amount of labour and worry in the future. When the preparation of the border is completed time should be given for the soil to settle down and to be warmed by the sun and sweetened by the breath of heaven. The birds, too, are of incalculable benefit in picking out the worms and grubs and generally scavenging the soil. When you are sure it is fit it can be gone over with a hay rake, and planting may begin. Autumn and early spring are the two seasons for these operations. I infinitely prefer the autumn, but it is advisable to leave the planting of the more delicate subjects until spring, so that they should not have the rigours of a winter to contend with before they settle down in their permanent home.

Supposing you have neither wall, hedge, nor paling behind your proposed border, but must have some sort of division from the rest of your garden, I should advise your planting a good selection of ornamental shrubs as a background, choosing those that bloom attractively, or have brightly-coloured foliage. To begin with there are the Lilacs, white and purple, of



THE NYMPHÆA POND IN THE EARL OF ONSLOW'S GARDEN.

which beautiful floriferous varieties may be had. Dr. Lindley, with fine reddish clusters, Dr. Masters, a pure lilac, while for the white Marie Legraye can hardly be beaten. Between the shades of purple-lilac put the *Kerria japonica* or the *Berberis wallichiana*, which has quantities of clear yellow flowers, intensely sweet in the spring, followed by an abundance of purple berries. Then with the *Weigela rosea* and *alba*, Broom, white and yellow, *Syringa* and *Laurustinus*, the *Laburnums*, and a few of the Japanese Maples to give colour in the autumn, you will have a charming compact hedge, not too formal, with plenty of colour, as a background before the taller plants push up.

I saw lately a good effect produced by pillars of the various rambler Roses at the back of a herbaceous border. *Aglaia*, wreaths of pale gold; *Dorothy Perkins*, charming double pink flowerets; the Apple blossom-like *Waltham Rambler*; and *Queen Alexandra*, while the favourite *Crimson Rambler* eclipsed them all. But it is in spring and autumn we want to increase our colour strength. At midsummer we have a wealth of beautiful flowers, and a perpetual rambler has yet to be evolved. Now in front of the shrubs, but not too close—for remember how fast these coarse subjects grow—plant *Phloxes*, carefully selected from an excellent list given in *THE GARDEN* for September 3, arranging the colours judiciously and avoiding all those of a magenta tone. You must calculate the distance apart according to the length of your border, for you have a large variety of other plants to work in. Then suppose we take the *Rudbeckias* and *Helianthus* of good named sorts and the white *Daisies*—*Pyrethrum uliginosum*, and *Chrysanthemum maximum*, which is earlier. The former, though it is charming and most useful for cutting, must be used sparingly, for it increases at a fearful rate. Then mix in the *Golden Rod*, *Solidago canadensis*, and the later flowering *ultissima*. Next come the *Michaelmas Daisies*, disposed among the foregoing plants. The *Star Asters* are now of such endless variety that the difficulty is in the choice, but avoid the old coarse foliaged kinds, as they flower badly. You must use all this material with care and judgment, purple, yellow, and white alternating. Remember this is your autumn flower show, and that the *Phlox* will most probably be looking shabby before the *Michaelmas Daisies* are in full bloom. Purple, white, and gold will then predominate, and a very lovely colour combination it is, mixed with the green and white ribbon *Grass* and giant *Maize*. Do not forget to slip in a few hybrid *Foxgloves*, they will serve you in good stead in early summer, when your ornamental shrubs have done blossoming, and when once established will appear every year. Also plant a few good *Hollyhocks* to succeed them later, whose charming spikes of many colours will tower grandly above all other things.

Now we come to the second row. First in my choice are the *Delphiniums*, particularly the lighter shades. The scarlet and crimson *Oriental Poppies* work in well, keeping the two colours at some distance; *Pæonies*, single and double, and the old-fashioned *Columbines*. I lay a stress on old-fashioned, for I do assure you that the best of them are infinitely more effective in a mixed border than the spurred *Aquilegias*. Their foliage is much richer and more compact, and though the flowers are not individually as delicate and graceful in tints, they are more telling in colour. Then come the beautiful *Lupins*, light blue, dark blue, purple, white, and yellow; the scarlet *Lychnis*, most useful and striking; *Potentillas* and *Geums*, somewhat unsatisfactory and straggling,

but still acceptable; *Monarda didyma*, perfumed and handsome, but a bit of a tramp; *Spireas*, pink and white; *Achilleas* and *Galegas*, several *Campanulas*, and *Erigeron speciosum*.

In the third row you shall have the hybrid *Aquilegias*, *Heuchera sanguinea*, the pretty metallic blue *Eryngium amethystinum*, Japanese *Anemones*, and other plants of like nature too numerous to mention. And here begin the bulbs, *Hyacinthus candicans*, *Montbretias*, Spanish *Iris*, and *Lilium longiflorum*, unless you have a *Lily* border separate. Then in the fourth row *Sweet Williams* (a self-coloured variety called *Pink Beauty* is very useful, for pure pink is a scarce colour), Iceland and alpine *Poppies*, *Wallflowers* of all shades, and *Canterbury Bells* in large clumps of distinct colours. Then as we get towards the front we will have *Dianthus* and border *Carnations*, *Polyanthus* and *Tulips*, *Daffodil* and *Narcissus*, *Forget-me-nots*, and hybrid *Primroses*, the *Poppy* and *St. Bridgid Anemones*, if they will do with you, and then next to the wide turf margin, which I hope you will have between your border and the gravel path, put low-growing things, *Aubrietia* (plenty of this), *Violas*, yellow *Alyssum*, and *Rock Cress*, and now, save for the annuals, your border is complete. I will treat of these last in the future. Probably some gardeners will criticise this scheme as formal, but you must remember that order is Heaven's first law, and that in a few weeks after the spring growth has commenced there will be no formality, and very little order. The rapidity of the growth of plants is extraordinary; science is beginning to calculate it by minutes. This being the case, it is most desirable to plant with regularity, and as much as possible with regard to height. But I deprecate the planting in large patches of one sort of plant of the same height. Once in the garden belonging to a beautiful place I hurried eagerly to see the herbaceous borders, which I had been told were wonderful. I looked and, bitterly disappointed, I turned away. I cannot remember what flowers composed the centre of the borders, but there were large bays up the entire front, filled alternately with dwarf *Antirrhinums*, *Zinnias*, *Stocks*, *Asters*, *French Marigolds*, and *Coreopsis*, about fifty plants in each. The gardener remarked that it was a very difficult piece of bedding, and, like Dr. Johnson, I almost exclaimed, "Would it had been impossible!" I also do not hold with placing a large plant in the foreground to break the monotony. There is no monotony if Nature is not outraged. *French Poppies* will spring up uninvited, and will flower so delightfully that you will forgive them for taking *French leave*. A provoking orange *Marigold* will fill a blank, and, so that it is not too close to a crimson flower, you will let it remain against your better judgment. When your herbaceous border has been established a couple of years you will pull up a great deal more than you will put in, and every cottage garden in the neighbourhood will confess to legitimate, or illegitimate, appropriation of your superfluous beauties. You have now collected every available plant to give you colour through April, May, June, July, August, September, and perhaps October. But do what you will—work as hard as you like, nip off dead blossoms, trim and prune, water and manure—I cannot promise you an absolute success, for the forces of Nature are against you as well as for you, and each succeeding summer there will be different mistakes and failures. I find myself apologising to my visitors as I march them along my borders for vacant spaces and

withered plants, and then I see that it is the whole effect that they are looking at, and that a mass of colour and sweetness should be the aim, if not the end, of the mixed border.

AUGUSTA DE LACY LACY.

SWEET LAVENDER.

IF there be one herb more than another that we may regard as thoroughly English, fragrant in itself and redolent of good housewifery, it is *Lavender*. Speaking without book, one might be apt to say that it was dear to Shakespeare's gardening heart, yet in his day it must still have been rare or no great favourite of his, for he makes but scant allusion to it once only—in "*A Winter's Tale*." Nevertheless, it was introduced into our gardens from Southern Europe as early as the sixteenth century, and, in common with many an imaginative writer, we have accustomed ourselves to-day in thought to wed the hoary grey of *Lavender* bushes with the terraces of stately Elizabethan mansions, and to associate them no less with many-gabled, roomy homesteads and old-fashioned gardens filled with hardy fruits and flowers. We picture to ourselves the capacious chest or "armory"—a pretty old word-relic of France which still lingers in Scotland—well stocked with household linen, mostly homespun, and laid away with *Lavender* pressed lovingly between the folds by gentle mother-hands, to wait the time when the children shall go forth from the parent roof to homes of their own. All this is now only an echo of the past, though the tender memory lingers with us still. It was but the other day that a misguided townsman was heard to say, "Ah! yes; your sheets in the country always smell of *Lavender*." What a sadly mistaken idea! No village inn nowadays can boast of its *Lavender*-scented bed linen. The broad *Oak* staircases and bright polished furniture, the cosy *carven* settles, and the rare old china *beau-pots* filled, as the seasons came round, with *Snowdrops* and *Lilies* of the Valley, with *Damask Roses*, or, daintier far, the white *Rose* of *Provence*—all these, and *Lavender* bushes amongst them, which used to be the pride of countless old-fashioned hostleries, where are they? Nothing is left of them but shadowy memories put away in the inmost recesses of our thoughts, and only brought out now and then with the same sense of half-pitying condescension with which we unfold the faded silks and satins of some long-forgotten ancestress.

But why this dejected train of thought? It may be told in a few words. There is a sweet *Sussex* village, well known to the writer, with comely, deep-roofed farmhouses, each with its quaintly steeped oast-house, with pretty weather-tiled thatched cottages, having more than garden space enough to satisfy all reasonable needs, and yet—would it be believed?—amongst a group of sixteen householders, living in this unspoiled country village—with ample garden room to every cottage—who were being entertained at a garden party a few weeks ago, not one possessed a *Lavender* bush. It was almost pathetic to listen to the exclamations of genuine delight with which some goodly rows of *Lavender* and *Rosemary* were hailed. "*Lavender*. Oh! what a beautiful lot. I haven't seen *Lavender* growing this many a day." "There's one bush, maybe down at *Brownlow's*," naming a distant farm. "A muslin bag of *Lavender* was given to me years ago; I have it in my basket yet, for it's sweet-scented still." "Please may we beg some slips," and so the chorus went on.

Of course, we know that there are Lavender grounds at Mitcham, Hitchin, and elsewhere. Nor do we now consider distilled Lavender one of the most refined of scents. But this does not touch the point that Lavender is no longer, as it used to be, a universal garden inmate. There is, besides, another significant fact which it would be well to bring before the minds of garden lovers—that the Lavender of commerce no longer produces seeds as it did of old, but has now to be propagated entirely by cuttings or divisions. One may try in vain to save seed of both the common and the white Lavender—it is all abortive; not one single grain is to be found. With the pretty earlier-flowering dwarf Lavender, a plant not half so much known or grown as it should be, seeds are both plentiful and easy to raise. It is supposed that over-production, by the speediest method of rooting cuttings, is the cause of this degeneracy, for it is a sure sign of wearing out. Lavender is a short-lived shrub at best, and not among the hardiest. So it might happen at no far distant time that we may read over against its name: "Formerly a favourite sweet-flowering shrub in English gardens. Now extinct."

Miss Jekyll in her charming and most helpful books has done more to bring back the old-world fragrance of Lavender and Rosemary to our gardens than any other modern writer. To her we owe the delightful suggestion of Lavender planted with the sweet old Monthly Rose. To her, too, is owing the bountiful supply which gave so much pleasure to the village matrons aforesaid, which will in its turn, it is hoped, repair the lack of our own country-side gardens. But surely it behoves us all, who love our gardens and desire that our less fortunate neighbours should have some measure of the same enjoyment, to follow her lead and to do our part, each in our own environment, in bringing back the cult of homely border flowers and the fashion of using the simple scents which a garden can produce. For, in truth, the delicate garden perfumes of Lavender and Verbena and dried Rose leaves are fast giving place to coarse chemical compounds, in high favour nowadays with country as well as townfolk, whose tastes only need a little training in better and more refined directions to enable them to realise that such strong incense leaves a trail behind it in the pure air of the country lanes almost as obnoxious to sensitive nerves as the petroleum vapours of the ubiquitous motor-car. K. L. D.

THE HAMMOCK UNDER THE OAKS.

SOME AUTUMN FLOWERS.

OCTOBER is a busy month for the amateur gardener who does a great deal of her own planning and planting. What we used to call the "Barren Hill," under the shade of some Oak and Ash trees, we are now trying to transform into a "Hill of Flowers." The little girl and I slip out there every morning, armed with trowels, a bag of bulbs, and an old tin saucepan. Old black Tom has made us a good many miniature ditches and holes in the hill-side with his pick-axe. Then he hauled us a load of rich compost from the barnyard, mixed with rotted leaves. The rest of the work we must do ourselves. It consists of filling up the little ditches by the aid of our trowels and the saucepan, and then planting the bulbs in the soft mould. On either

side of the little footpath that winds over the hill we have planted in this artless manner hundreds of Garibaldi, Mammoth Golden, Mme. Mina, Mont Blanc, and Baron von Brunow Crocuses. Another part of the hill is reserved for a planting of *Narcissus poeticus ornatus*. These *Narcissus* bulbs and many more are ordered, but have not yet arrived. The garden is still furnishing abundant bloom, but it is outrivalled by the glories of the marshland at the foot of the pasture fields. This marshy ground, through which runs a Mint-bordered stream, is brilliant in purple and gold of Asters, Ironweed, Golden Rod, many wild *Rudbeckias*, *Coreopsis*, wild Sunflowers, and other Compositae. In the wild garden here also the autumn flowers are unusually showy and luxuriant. The abundant rains of this phenomenal year have brought forward all vegetation, as the rainy season does in tropical climates.

A few plants tried for the first time here have been interesting and more or less successful. One of these is *Nicotiana sylvestris*, not altogether new in the flower market, but new to us at Rose Brake. This plant is listed by some of our seedsmen as an annual, but with us it has more of the character of a tender biennial. Seedlings planted last year and kept in the plant-room over winter bloom about midsummer in the open border. We have one at this time (which is the first week in October) still in full bloom. It has been in flower since August 1. This *Nicotiana* is very different in appearance from *Nicotiana affinis*, with its meagre foliage and stiff, nearly upright flowers. It is a noble and stately plant, and grows from 4 feet to 5 feet in height, with leaves soft as velvet to the touch, the lower ones lying on the ground and over 1 foot in length, about 6 inches in width, oval, but tapering to the base and clasping. The main stalk was topped early in August by a shower of blossoms delightfully fragrant, especially in the evening, longer than those of *N. affinis*, and pendulous around the stalk. The plant has many branches, all topped by these pendent blossoms, and it has tier after tier of the handsome light green leaves. As a single plant remains in flower for more than two months, and as it is a most conspicuous ornament of the flower garden during that period, this *Nicotiana* seems to be a valuable addition to the small list of species already in cultivation. In order to encourage the growth of the branches it is best to break off the main stalk as soon as the blossoms fade.

Some of the late *Phloxes* are still in full beauty. We find that those planted in the shade outlast those in full sun and do not dry up, as they have a tendency to do in hot and dry weather. A pretty picture in one of the borders is made by a group of *Caryopteris Mastacanthus*, which has greyish foliage and abundant heads of small lavender-blue flowers. In front of the *Caryopteris* are two large clumps of *Phloxes* 3 feet in height. One of these is *Adonis*, a late-flowering variety with large florets of bright China rose colour. The other is *Oberon*, a most charming sort, with flowers of rich deep crimson. I consider this one of the best and most brilliant of crimson *Phloxes*, especially valuable for its late-blooming habit. These two harmonise well, and, with the *Caryopteris*, furnish a gay bit of colour.

In what we call the Dutch garden, with its sunken beds and little brick-paved paths, there has been an unprecedented growth, owing to the remarkably wet season. The plants have burst all bounds, and riot across the narrow paths in wild abandon. It has taken constant

diligence to prevent the tall *Nasturtiums* on the fence from strangling the *Roses* in the borders below. It has been a good season for *Roses*. Enchantress, Maman Cochet, Grüss an Teplitz, Caroline Testout, Mrs. John Laing, Golden Gate, and Adrienne Christophle have all been fine. A young Lamarque planted last spring from a 4-inch pot has grown 6 feet and given us many flowers.

Nellie Curtis is a *Rose* of climbing habit with numerous clusters of loose double white blossoms. The original of this *Rose* blooms at Mount Vernon, George Washington's home on the Potomac, and was named after his step-daughter. It is a rapid-growing, hardy, and free-flowering climber, the small blossoms very fragrant, as almost all old *Roses* are.

In the centre of one of the square beds in the Dutch garden we have a large *Solanum azureum*, planted from a tiny pot in May. This bed is all in blue and white. Around the *Solanum* are some tall *Cosmos* plants, looking like miniature trees of hairy foliage. The *Solanum* has grown to the top of these plants which it o'er-canopies, and, in full bloom, with many clusters of sky blue blossoms, it is a pretty sight, suggesting a tropical forest in miniature with great *Lianas* creeping up to the summit of the trees. This *Solanum* is so pretty that we intend to take it up and pot it for winter decoration of the plant room.

DANSKE DANDRIDGE.

(To be continued.)

NOTES ON HARDY PLANTS.

ERYSIMUM PEROFKIANUM.

IN the brightness of its orange tint there are few flowers that approach this *Erysimum*, which quite eclipses that of *Cheiranthus Marshallii*, and the statement in Nicholson's "Dictionary of Gardening," that it is "one of the showiest hardy annuals grown," is well merited by the plant. I remember some years ago, at the end of August, being struck by the sight of a rough slope in Abbotsbury Castle Gardens entirely covered with this *Erysimum*. The effect of the mass of brilliant orange was gorgeous. Seed sown in September will flower in the early spring and April-sown seed in August. The plants will grow anywhere, on gravel paths or wall-tops, appearing as happy as Wallflowers under these conditions. In beds of rich soil the slugs often clear off the whole batch, as they are inordinately fond of the plants, leaving everything else for them, so that precautions must be taken to keep them away until the plants have formed hard stems. Considering its brightness and beauty this annual is surprisingly little grown. S. W. F.

NEPETA MUSSINI.

THOUGH not a particularly showy plant, this old perennial, which was introduced into this country from the Caucasus in 1804, is distinctly valuable, since it remains in bloom for many months. It commenced to flower early in June, and now (at the end of September) is still blossoming well. The flower-racemes are about 18 inches in length, and are thickly set with small lavender-blue blossoms, which render large plants, 3 feet or more across, breadths of soft colour. The plant is, of course, absolutely hardy, but is rarely met with in gardens, though it is well worthy of a position in the herbaceous border. The lavender flower-sprays arranged in a small vase are pretty for indoor decoration. S. W. F.

PHLOX PANTHEON.

THE number of *Phloxes* is so great that it would be a matter of difficulty to make a selection to comprise the twelve best. Those who intend adding to their collection cannot, however, do

wrong in choosing Pantheon, which in habit of growth and floriferousness leaves nothing to be desired. It is by far the best of the salmon-coloured varieties I have hitherto grown.

J. CORNHILL.

PENTSTEMON BARBATUS.

This is a particularly showy plant when grown in a good-sized group, the numerous flower-spikes, 3 feet to 4 feet in height, holding their drooping orange-scarlet blossoms, set at some little distance apart, having a very gay appearance even at a distance. Commencing to bloom in July the plants continue to flower from their side shoots well into September, and thus are valuable in the garden for many weeks, while for indoor decoration the tall, graceful, brilliant-flowered spikes are ever welcome, since, arranged with a few Grasses in tall vases, they create a bright and artistic effect.

The form known as *P. barbatus Torreyi* is rather more vigorous than the type, and is preferred by some, while *Pentstemon mexicana*, so-called, is evidently only a variety of *P. barbatus* with deep rose blossoms, though it is said to be a more consistent flowerer than that species. These *Pentstemons* are far better known in gardens under the name of *Chelone*, by which they were formerly universally recognised. All three varieties are well worth growing, and are, indeed, amongst the best of herbaceous plants. They are practically hardy and need no winter protection.

S. W. F.

COREOPSIS GRANDIFLORA SUPERBA.

The usefulness of the old *Coreopsis grandiflora* is so well known that an improved form is certain of a welcome. This is of continental origin, and appears to me to be a hybrid between *C. grandiflora* and *C. lanceolata*. Its leaves more

resemble the latter plant, but they are slightly lobed, especially those formed at the base. The flowers are very freely borne, and they have the disc of *C. grandiflora*, and markedly plicate and deeply-cleft petals of a deeper colour toward the centre, so that the flowers appear star-like, and are very full and showy. It is a pretty variety, the star-like outline and "expression" of the flower—if I may use such a term—is very real. It is probably not constant from seeds, but there is no difficulty in rooting cuttings at this season.

G. B. M.

LILIUM JAPONICUM COLCHESTERENSE.

This beautiful Lily comes from Japan, and is generally known as *L. odorum*, a name its delicious fragrance has earned for it. It is closely allied to the well-known *L. Brownii*, and is even more vigorous than that popular sort. The bulbs are white and fleshy, and are unusually susceptible to injury from damp and cold, hence the presence of low-growing shrubs, such as shown in the illustration, around the plants is necessary to hold the balance of moisture at the root. The bulb formation, texture of the leaves, and the masses of roots that issue from the stems all indicate a habitat amid scrub, and the marvellous wealth of flowers depicted in the accompanying illustration is only possible when such intelligent association of Lilies with other garden plants is well carried out. The flowers of this Lily are exceedingly handsome, measuring 8 inches to 9 inches long and 6 inches across the richly cream-tinted funnel. A beautiful clear yellow suffuses the throat of the flower, and the outside is irregularly flushed with brown. Grown under glass, this brown colouring gives place to a light green, and the whole flower is cream-tinted. I have seen six flowers on single stems many times, and more may be possible with well-grown established roots. One cannot grow this Lily well everywhere, but in shrubberies, beds of *Rhododendrons*, *Bamboos* and *grasses*—all cool and sheltered—the Colchester Lily is grand, and as long-lived as any. Half the trouble in Lily cultivation would disappear if growers would plant their bulbs where the flowers could be seen in a setting of suitable leafage. The rooting medium in such places is generally the correct one, while leaf-soil and sand around the bulbs will keep them thriving.

G. B. M.

KNIPHOFIA TYSONI.

This handsome plant, somewhat like *K. caulescens* in general habit, but without the stem which characterises that species, is now flowering freely in the open border at Kew. From 3 feet to 4 feet high, with a large number of glaucous-coloured leaves 2 inches broad at the base, and tapering gradually to a long point, it makes a very effective border plant. Although it has been in its present position for two mild winters, being almost an evergreen, it is doubtful if it would stand a severe one without being well covered up with *Bracken* or dry leaves. The flower-stems are stout, and bear dense racemes 6 inches to 9 inches long and about 3 inches in diameter. In the bud stage the flowers are dull red, but on opening are streaked with yellow, eventually



LILIUM JAPONICUM COLCHESTERENSE AMONG SHRUBS.

losing all trace of red. A native of East Griqualand, seeds were received at Kew in 1899, flowering for the first time in September, 1903, but not so freely as it is this year. Other interesting members of this family in flower are *K. breviflora*, a graceful little plant from the Orange River Colony and Natal, where it is found at 5,000 feet to 6,000 feet elevation. The numerous leaves are very narrow, while the flower-stems are slender and freely produced, bearing close heads of yellow flowers. The stamens of these are slightly exserted from the mouth of the tube. *K. citrina* is a rather stronger growing plant, with lemon yellow flowers, from the mountains north of Grahamstown. This last species was introduced by Herr Max Leichtlin in 1893, but is still rare in gardens, although its distinct colour is a recommendation. Like many of the other smaller growing species it suffers a good deal during the winter, and requires well covering up with some light material. W. I.

COLCHICUM GIGANTEUM.

THOUGH not the largest flowered member of this useful and ornamental family, the flowers of this plant present a very sturdy appearance and are of good substance. They are borne on stout tubes which hold them erect. Introduced into cultivation by Herr Max Leichtlin in 1901, it is becoming more plentiful, and promises to be a favourite plant. It is evidently only a well marked variety of the older *C. speciosum*, and there is a specimen in the herbarium of a plant from Amasia in Asia Minor, which flowered with Sir Michael Foster in 1894, and which is identical with *C. giganteum*. *C. giganteum* differs from *C. speciosum* in having shorter and broader segments, over 1½ inches wide in the broadest part. The apex of the segments are also more rounded instead of being acute as in the more typical forms of *speciosum*. Without the tessellation which is characteristic of many of the Meadow Saffrons, the colour of the flower is of a soft rosy purple, with a few darker coloured spots scattered over the surface of the segments. Like *C. speciosum* it has also a lighter base, but hardly so pronounced as in that species. When it becomes common enough it will form an addition to the comparatively few autumn flowering bulbous plants available for the wild garden or margins of ponds. W. IRVING.

NEW AND RARE PLANTS.

ODONTOGLOSSUM CRISPUM XANTHOTES.

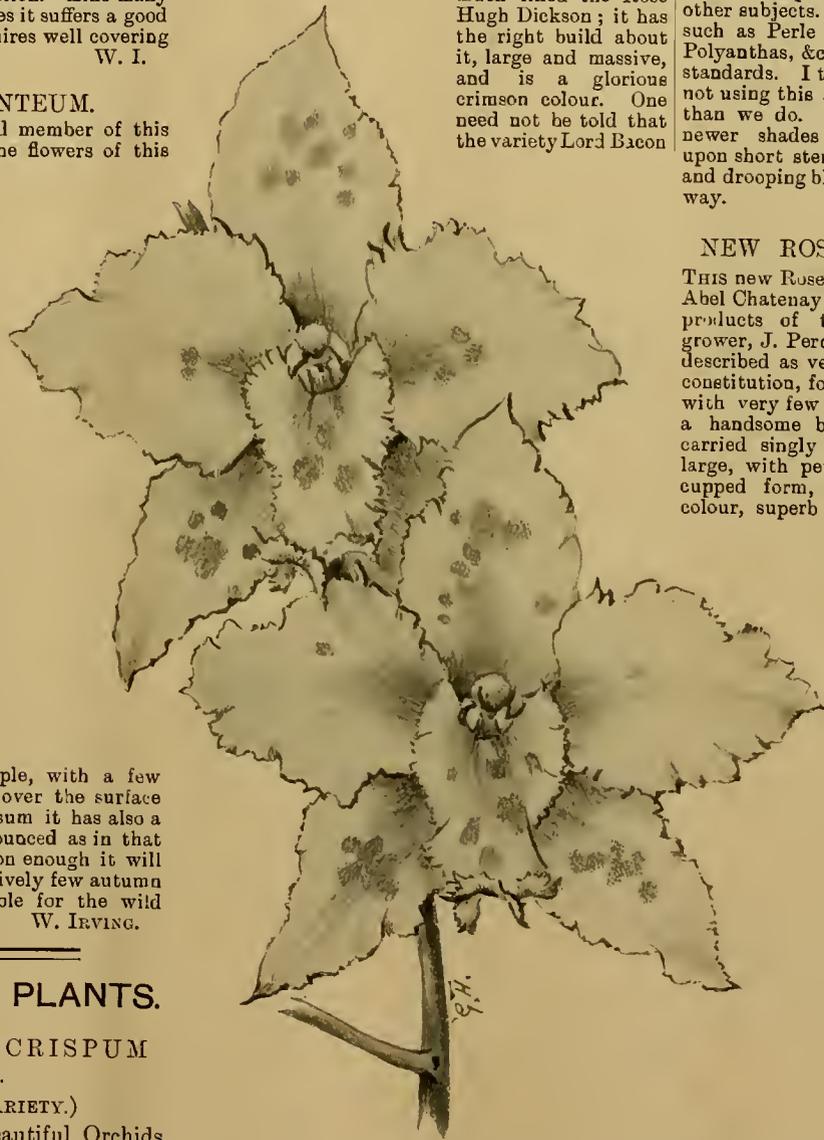
(CHARLESWORTH'S VARIETY.)

ONE of the most beautiful Orchids seen at any recent exhibition is this form of *Odontoglossum crispum*, shown by Messrs. Charlesworth and Co., Heaton, Bradford, York, before the Royal Horticultural Society on the 20th ult. The Orchid committee gave it a first-class certificate. It has a white ground which is rather heavily spotted with amber-yellow on the sepals and less so on the petals. The lip is long, with frilled edges; it, too, is white with amber blotches, while that part beneath the column is a lighter shade of yellow. The form of the flower is perfect. Messrs. Charlesworth are to be congratulated upon the introduction of such a beautiful Orchid.

THE ROSE GARDEN.

ROSE HUGH DICKSON.

IF this grand Hybrid Perpetual proves to be generally as good in autumn as was shown at the Royal Horticultural Hall recently, it will be very acceptable. Our greatest need now seems to be a crimson autumnal Rose that possesses also quality of blossom. Massing Roses that do not possess this latter quality will soon weary the average grower. What we want is a Rose as free, showy, and vigorous as Caroline Testout, with the indispensable charm of sweet fragrance. I much liked the Rose Hugh Dickson; it has the right build about it, large and massive, and is a glorious crimson colour. One need not be told that the variety Lord Bacon



ODONTOGLOSSUM CRISPUM XANTHOTES (CHARLESWORTH'S VARIETY).
(Natural size. Given a first-class certificate at the meeting of the Royal Horticultural Society on the 20th ult.)

was one of the parents. It portrays this fact in growth and in blossom, only that the free blossoming habit has been produced by the pollen parent, which is a Grüss an Teplitz seedling. It seems very remarkable that so few of the new Roses are scarlet or crimson. We appear, however, to be on the eve of quite a harvest in crimson Roses for autumn blooming. They will need to possess good brilliant colouring, free from the bluish taint that mars Roses of the Liberty and W. F. Bennett type. We want the glorious colour of Louis van Houtte imparted to our Hybrid Teas and a blossom of equal merit. Hugh Dickson seems to me to possess

some of these good points, but I can only judge from the cut specimens seen at the show. P.

POLYANTHA ROSES AS DWARF STANDARDS.

SOME of the newer dwarf Polyantha Roses are delightful when grown upon short standard Briars. One variety, *Katherina Zeimet*, has been very beautiful just lately with its fine spreading head of tiny snow-white flowers, which are as regularly formed as a *Ranunculus*, and in the mass have a charming effect. A groundwork of *Perle des Rouges*, freely planted so that the soil is not seen, would make a floral picture in early summer, and, again, in autumn quite equal to any effect produced by other subjects. Some of the other Polyantha Roses, such as *Perle d'Or*, *Eugenie Lamesch*, *Gloire des Polyanthas*, &c., are well worth growing as dwarf standards. I think we miss many pretty effects in not using this and kindred types upon stems more than we do. The Monthly Roses, especially the newer shades of colour, are really delightful upon short stems; their somewhat drooping heads and drooping blossoms are made the most of in this way. P.

NEW ROSE ETOILE DE FRANCE.

THIS new Rose, the result of a cross between *Mme. Abel Chatenay* and *Fischer Holmes* is one of the products of that well known and able Rose grower, J. Perrot-Ducher, of Lyons, France. It is described as very vigorous in growth and of robust constitution, forming upright bushes of large size, with very few thorns on the branches; foliage of a handsome bronzy green colour; buds long and carried singly on stiff, erect stems; flower very large, with petals of good substance, magnificent cupped form, very full and expanding freely; colour, superb velvet crimson, the centre of the bloom vivid cerise. The flowers are very fragrant and last well. This new variety has inherited from the seed-bearing parent, *Mme. Abel Chatenay*, its wonderful habit of growth and free-flowering qualities, and from the pollen parent, *Fischer Holmes*, it has derived its brilliant colour. It is claimed for *Etoile de France* that it is the queen of ever-blooming red Roses, the best red Rose for forcing under glass for cut flower purposes, and the most vigorous and free-blooming Rose ever introduced. It was awarded a gold medal at the International Horticultural Exhibition at Turin, Italy, May 12, 1904, and a first-class certificate of merit by the National Horticultural Society of France, May 25, 1904. — *Gardening* (America).

ROSE THE BRIDE.

FROM the first introduction of this grand Rose it has been a favourite with me. I have in my room now a fine bloom that was cut nine days ago and it is still quite fresh, while its shape is as good as on the day it was brought to me. I consider it the best of all white Roses to stand. It is very free-flowering, and when one has a stock of plants and so can choose good sound buds for propagating, it is an excellent grower. I think that the chief cause of many good new Roses being discarded before they are thoroughly tried is owing to their being over-propagated. The *Bride* is an example of this, as during the first few years of its being in commerce it was a weakly grower compared to what it is now. The same remarks apply to that grand Hybrid Perpetual *Alfred K. Williams*, to *Mrs. John Laing*, and others. R.

GARDENING OF THE WEEK.

FLOWER GARDEN.

PROPAGATING SHRUBS.

CUTTINGS of many hardy shrubs root readily if inserted out of doors at the present time. The selection of growth for making the cutting requires some little care and judgment. When possible the shoots from only healthy plants should be employed, at the same time choosing the growths of medium texture. Stout, sappy growths rarely root freely, nor do those which are thin and wiry. The cuttings should also be typical of the shrub at its best—that is to say, those of variegated or golden-foliaged shrubs, such as *Euonymus*, should be well coloured and have the characteristic markings, and be free from any tendency to revert to the green-leaved types. The cuttings root best when of good length; 9 inches long is better than 4 inches. Many err in this respect; short cuttings cannot be firmly inserted, and they are displaced by the first moderate frost. A border on the north side of a low hedge is usually a good position. The soil must be well drained and contain a good proportion of leaf-mould and sand or grit. The dibber is often used for inserting the cuttings, but the spade is more expeditious and probably better. After the bed has been made moderately firm and raked the rows should be marked by stretching the line or laying the garden staff. The soil is removed by the spade to the required depth, keeping a straight edge by the line or staff. The cuttings are placed in the rows against the upright edge, and the soil placed firmly around them. The distance in and between the rows will vary with the size of the cuttings, but it is well to allow plenty of room in the rows for the hoe to be plied.

ROSES.

The Rambler Roses, Hybrid Perpetuals, and nearly all the hardier kinds will root freely under these conditions. With Roses long cuttings are best, and rather more care in making a clean cut is necessary. Fairly stout shoots should be selected, and for preference those from which blooms have been previously cut.

CONIFERS.

These are somewhat uncertain subjects. Occasionally a fair number will root, and at others the proportion is very low. As a rule, the *Retiosporas* are the easiest. I have been the most successful with conifers, as a whole, by inserting the cuttings in boxes and placing them close by the foot of a north wall, away from all sun, and of course free from any drip.

LAYERING.

This method is often successfully employed with choice shrubs and Roses, as well as those which are difficult to root. Some fresh soil is usually necessary, and the growth should be firmly pegged down.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

BULBS TO BE POTTED.

THOSE that were potted early, as previously advised, are making good progress in growth, and require to be lifted out of the sand in which the pots were plunged. After placing them for a few days in a subdued light until the growth assumes a green colour afford them all the light and air possible, and at the same time soak the soil about their roots well with water. All the midseason and late kinds are now being potted up and treated similarly to those potted earlier. Those to be forced mainly for cut flowers should be put in shallow boxes, as then a much greater quantity can be accommodated, and the labour in attending to their requirements is considerably reduced. In the latter case a few rough leaves or lumpy loam only is necessary as drainage, but the pots in every instance should be well drained. If the soil used in potting is rather light and dry give a good soaking with water before plunging in the sand.

Narcissi especially do best in a moist, cool soil. As growth advances afford them abundance of air.

MALMAISON CARNATIONS.

While the layers are now rooted and ready for potting up those that were potted earliest are advancing in growth, and are quite ready for repotting into 7-inch and 8-inch pots, and in these they will flower. Get them well established in the new soil before the dull, dark days of winter. Carefully stake the shoots of the second year plants to admit air and prevent their getting broken. The greatest care should be observed in applying water to the roots until spring; indeed, the application of water to the roots of newly-potted plants will for some time be unnecessary.

EAST LOTHIAN AND INTERMEDIATE STOCKS

are ready for pricking out 2 inches apart in boxes, or where there is plenty of convenience put them in pots singly and place them in a close cold frame until they re-establish themselves. Keep the interior of the frame dry, and fumigate occasionally to keep green fly in check.

CINERARIAS

not only require an abundance of air to prevent the leaf-stalks getting drawn, but their crowns will develop better if they are given a position close to the glass to obtain the benefit of the light. Although *Cinerarias* grow the best in a cool, moderately moist soil, a mistake is often made at this season in keeping the soil about their roots too wet.

PRIMULAS.

The earliest of these are now showing flower-spikes, and will derive great benefit from an occasional dose of liquid manure or soot water. Afford them a good supply of air and light, with a moderate supply of water at the roots.

J. P. LEADBETTER.

The Gardens, Tranby Croft, Hull.

FRUIT GARDEN.

MELONS.

THE weather has been most favourable to the growth and ripening of late Melons. When ripened without the aid of sun they are of poor flavour and of little value. A rather dry, warm atmosphere must be kept during the time the fruits are ripening, otherwise they are liable to split. Thin and stop the growths, and take advantage of bright sun to ventilate freely in the early part of the day when the fruits are colouring. Later plants whose fruits are developing must receive no check. Do not use the syringe too much at this season; moistening the paths and borders is sufficient. Keep a steady bottom-heat and a night temperature of 70° at 10 p.m.

CUCUMBERS.

Sow seeds if this has not been done. Planting Cucumbers is often delayed, owing to the house being occupied with late Melons. If the latter do not promise to be satisfactory they should be cleared out to make room for the Cucumbers. Grow the plants sturdily, and keep down insect pests; pick off all the flowers, and allow the plants to grow well before they bear fruits. A steady bottom-heat is essential during the winter months, whether obtained by hot-water pipes or fermenting material. A night temperature of 70°, falling to 65°, is suitable now. Avoid a close atmosphere by careful ventilation, stop and remove all exhausted growths, and do not overcrop the plants. Give light top-dressings of rich soil, warming the soil well before using. Give occasional waterings of warm weak liquid manure, and see that the plants are not infested with spider, thrips, or fly.

STRAWBERRIES.

Plants for forcing next season have now filled their pots with roots. Give plenty of space to each plant, so that the crowns may become well matured. Remove all runners and weeds as soon as they appear. Give weak manure water to all plants that require it, care being taken not to overfeed strong leafy plants which are inclined to grossness.

WINTER TOMATOES.

Plants required to provide fruits during the winter months now need more warmth and less air and

less moisture at the roots. A warm atmosphere is essential for the setting and the swelling of the fruits at this season. Remove the side growths, and fertilise the blooms daily with a soft brush. Where young growths have been trained in on late summer plants a good set of fruit is often secured. These plants will continue to supply good fruits if they are clean and not exhausted.

Impney Gardens, Droitwich.

F. JORDAN.

KITCHEN GARDEN.

LIFTING CARROTS, &c.

DURING the present month this will be important work. An effort should be made to have the various crops lifted before severe frost sets in, and as long as there is a prospect of a continuation of this dry weather the work of lifting can be performed much more comfortably. All varieties of Carrots for the main supply should now be lifted. Carrots do not improve from being left in the ground after this date. Those sown in July and August may be left for some time yet. Should they be lifted too early the roots may shrivel. The main crop should be lifted carefully with a fork and allowed to dry before storing. They may be stacked in the same manner as advised for Beet. Care should be taken not to cut off the tops too near the crown. The store-house should be cool and dark.

SALSAFY

is still green and growing, and must be left for some time yet. Parsnips may be left till the end of the month.

CARROT PLOT.

As soon as the Carrot crop has been cleared the preparation of the plot for another season should be begun. Liberal dressings of soot should be placed on the ground as it can be procured. Fairly good Carrots have been grown on a plot that has been treated with fresh sea-sand, and also on ground that has been liberally dressed with wood ashes. Both are reliable aids for the production of this useful root. When time allows sand and wood ashes should be placed on the ground and every effort made to have all in readiness for trenching before frost sets in.

LETTUCE.

As this is always in demand, plants that are well advanced should be lifted with a large ball of earth and placed in cold frames for use during the winter. They should be kept near to the glass and given plenty of air. Watering should be done very sparingly and the leaves kept dry, or decay will soon set in. Plants from the last sowing will now be ready for pricking into frames. Choose the largest of the plants; the remaining ones may be left as sown, and in a warm situation may stand the winter and prove useful in spring. Remove all decayed leaves from full-grown plants and see that they are not too thick in the rows, as at this date the plants damp off rapidly.

Hopetoun House Gardens, South Queensferry, N.B.

THOMAS HAY.

ORCHIDS.

LÆLIA PURPURATA.

THIS grand old species is now starting into growth after having rested since the flowering season. If the plants have not many back bulbs and only require potting I prefer to wait until the growths have made more progress and collar roots are formed. When a large specimen shows signs of deterioration, I advise that it should be attended to at the commencement of growth. In cutting away the back parts do not retain more than two pseudo-bulbs behind the leading one. If this is carefully done little injury to the live roots will follow. Ordinary pots should be used, having them half full with rhizomes. We have found great benefit accrue since we used rhizomes in the place of crocks with most *Lælias* and *Cattleyas*, and especially with the above-named *Lælia*. The compost should consist of two parts each of peat and sphagnum and one part of leaf-soil, with some coarse sand and small crocks added. Pot moderately firm, keeping the base of the leading growth rather lower than the rim of the pot. Keep the new leads as

far as possible away from the edge of the pot. Leave sufficient room for a surfacing with sphagnum. Water should be applied very sparingly; damp freely between the pots. In no case try to force them; the best results are obtained by encouraging hard sturdy growth.

SPATHOGLOTTIS.

Aurea, kimballiana, Veillardii, and the fine hybrid aureo-Veillardii are either in spike or in flower, and water should still be freely applied. The flowers last longer if the plants are kept in the moist and hot house in which they are grown. Those not flowering are now starting into growth, and potting may be done. They prefer a fairly retentive compost, such as one made up of two parts fibrous loam, one part leaf-soil, and one part sphagnum, with a good quantity of small corks and coarse sand. Pot firmly, surfacing with sphagnum. They are easily propagated by division, and revel in much heat and moisture, so a shady position in the hottest house should be given and the surroundings kept moist except on dull winter days. They will benefit by being sprayed overhead throughout the year, and at no season should they be allowed to get dry at the roots. Ordinary pots are preferable to any form of receptacle that allows the free admittance of air to the roots. Give a good drainage, so that the free supply of water afforded does not quickly sour the compost.

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

CORRESPONDENCE.

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

LILIUM SULPHUREUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This is a very distinct and beautiful Lily. It was introduced by Messrs. Low and Co., and first exhibited by them before the Royal Horticultural Society on June 25, 1889, under the name of *L. wallichianum superbum*; it was then unanimously voted a first-class certificate. About this time considerable discussion took place in the horticultural Press as to the right name of this plant. In *THE GARDEN* of April 19, 1890, a coloured plate was given of it under the name of *L. nepalense ochroleucum*. In the *Gardeners' Chronicle* for 1891, part II., it is described by Mr. Baker under the name of *L. wallichianum superbum*. Eventually it was given specific rank and figured in the *Botanical Magazine*, t. 7257, under the name of *L. sulphureum*. Its most distinct character is the possession of bulbils in the axils of the leaves. It varies considerably in height; out of doors 5 feet to 6 feet is about the average. Under glass it often grows to a height of 10 feet or 12 feet if planted out. The flowers, two, three, or four on each stem, are slightly pendent, about 9 inches in length, and 7 inches or 8 inches in diameter at the mouth. The interior of the tube is yellow, fading to creamy white at the tip. The exterior is usually tinged with red, more especially in those grown in the open. It is very fragrant. It is found growing on the hills at a considerable elevation in Burma, and seems likely to succeed well in the open in many parts of the country. A very good place for planting it is among *Rhododendrons* if not too crowded. For a comparatively new Lily the price is very low, but this is no doubt due to the ease with which it is propagated from bulbils. These should be removed from the stems soon after flowering, dibbled in shallow boxes, and placed in a frame where frost is excluded. The second year they should be transferred to a bed in a sheltered position outside or where a frame can be placed over them in winter. They will flower in from three to four years. A. O.

POTATO PROSPECTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The National Potato Society's Great Exhibition at the Crystal Palace is near at hand, as it falls on the 11th and 12th inst., but the late Potato

breaths present not the least evidence of ripening, and at the present moment there are literally tens of thousands of acres in the kingdom where the plants are not only green but are even still blooming. Whatever may be the customary condition of the Potato crop at this time of year in the north, certainly it presents unusual aspects just now in the south. If appearances are to be taken as clear indication of what the tuber crop will be, then of late varieties of the Up-to-Date type there should be an enormous crop. But tops do not always clearly evidence the nature of the roots, hence only time can reveal the condition of the tuber crop. The present need of Potatoes is a spell of several weeks of fine dry weather, with mild frost to check further growth and compel the tubers to harden their skins. Trade and other growers who contemplate showing largely at the Crystal Palace late sturdy varieties are troubled lest on lifting their crops they will find the skins still thin and tender. That may not be a serious trouble so far as marketing is concerned, but it does adversely affect the appearance of tubers on the exhibition table. Such varieties as Northern Star, Eldorado, King Edward, The Factor, The Diamond, Lim Gray,



THE SPRING SNOWFLAKE IN A SURREY GARDEN.

Discovery, and many others of the newer or more popular varieties, even in the south, are still growing vigorously. It may be for that reason that perhaps medium or second earlies will make the best appearance at the Potato show. In any case a most remarkable show is certain, and the attendance of Potato growers will be a record one. A. D.

TROPÆOLUM SPECIOSUM AND LOGANBERRY IN SWEDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—After three years' trial I have succeeded in flowering *Tropæolum speciosum*. I have planted it on the north-west side of a *Pterocarya caucasica* on a lawn. Could you kindly inform me if it is hardy, or must I shelter it during the winter? The temperature is not often as low as -4° below zero Fahr., but we often have a spell of about 15° Fahr. Would you further inform me if there is any chance of growing the Loganberry here out of doors without protection during winter? I understand that it is successfully grown in British

Columbia, where I should think the winter must be very severe.

Wicks Gard, Wadsbro.

B.

[Both should succeed in Sweden. We publish the note in the hope that someone with experience will also help our correspondent.—Ed.]

FRUIT IN LINCOLNSHIRE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose a cutting from the *Yorkshire Telegraph and Star*, which shows the state of affairs in the fruit-growing districts of Lincolnshire. I have no doubt it will prove of interest to some of your readers. "Apples at Twopence a Stone.—A number of Lincolnshire fruit-growers have entered into contracts to supply Apples at 25s. per ton, the price to include gathering the fruit and putting on rail. One Spalding dealer is despatching fifty tons of Apples at this figure, the fruit going to Cumberland for the purpose of making cider." *Totley Hall Gardens, Sheffield.* D. LEWIS.

IMPORTING JAPANESE PÆONIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I wish to state again that an English Phylloxera certificate has no value at all, and that not even a Consul has the right to issue such a document. With few exceptions plants can be introduced to Germany by addressing the packages—which must be boxes, not hampers—to an agent at Hamburg, and giving him notice of the address of the final receiver. The agent calls for and pays the expenses of the expert, and forwards the box to its destination. *Baden-Baden.*

MAX LEICHTLIN.

LEUCOJUM VERNUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a picture of the spring Snowflake growing in a woodland garden in West Surrey. It is a charming little plant for the rock garden, and here under large trees it thrives well. Probably it benefits by the leaves which fall and enrich the soil. WEST SURREY.

A NOTE FROM MANITOBA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I receive *THE GARDEN* regularly every week; it reaches me two weeks from the date of issue. I am always pleased to get it, as I learn so much about the various flowers, plants, shrubs, and trees that I am interested in. I often think how delightful the Old Land must be with all its gardens, parks, and beautiful grounds. In Western Canada we are trying to grow many of these beautiful things too. We had an excellent display of flowers, &c., at our annual exhibition recently held in the City of Winnipeg, Manitoba. A very good account of it appears in the September number of the *Canadian Horticulturist*. I thought you would like to hear something of what we in this far-off north-western part of the British Empire are doing along the lines advocated by *THE GARDEN*.

H. HARLEY.

Swan River, Manitoba, Canada.

CACTUS DAHLIAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The Dahlia exhibition season is now nearly over, and so far it has been an excellent one. Flowers of all sections have been exceedingly good, and Cactus varieties, those which command most admiration, have been evolved to a degree of excellence beyond which in relation to the present accepted form of Cactus flowers it seems to be impossible to go. The new flower of the year is without doubt J. B. Riding, but many others, both old and new, are so beautiful in form and colour as to leave none standing out with exceptional excellence. A serious drawback to so many of the new and singularly beautiful varieties, especially those grown under favourable conditions of position and climate, is that they are never seen in the same superb form elsewhere later on. Many growers make that complaint, and no doubt it is



GROUP OF DOUBLE SEEDLING BEGONIAS.

for that reason that those which receive the honour of certificate awards are so seldom seen later. Committees of societies have of late been exacting from seedlings a higher standard of excellence—a matter for congratulation; but they have made no conditions as to constitution or habit. Hence scores of varieties honoured as seedlings with awards have been put on the market and have been failures. Constitution and general floral excellence should be taken into consideration before awards are made. Then, in relation to Cactus Dahlias as garden flowers, so little is done to encourage them. Certainly at the recent Earl's Court show classes for flowers in vases without any form of artificial support were found, and they were well filled. It was possible thus to see that there are varieties in commerce having fairly stout, erect stalks, but how few of these are to be found among the certificated ones. Some also had very short terminal stems. These vase classes indicate a step in the direction of encouraging the production of stiff, erect-stemmed flowers, but we do not find awards made to habit, but solely to beauty of bloom. The Cactus Dahlia still is rather a victim of the exhibition stand; hence its value as a garden or decorative plant is regarded as of very minor consideration by exhibitors. Yet to many Dahlia-lovers decorative effect in the garden is the primary consideration. When show, fancy, Pompon, or single Dahlias are concerned, no question as to garden habit arises, because those are in all cases known, and are always good. It is strange that the wonderful blooms of shows and fancies, not inaptly, all the same, described as lumpy, should after all be more conspicuous and effective in gardens than are the most perfect and beautiful of Cactus sorts. As to Pompons, they are amongst Dahlias inimitable garden flowers, and singles bloom almost too profusely. Whether from seed or from cuttings, plants now are generally dwarf, bushy, and marvellously floriferous. Raisers of Cactus Dahlias must begin to realise that if these are to continue widely popular habit and constitution must have the highest consideration. A. D.

LILIUM SPECIOSUM FASCIATED.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Enclosed are two small photographs of *Lilium speciosum* roseum which apparently by a freak of nature has a flat stem measuring $1\frac{1}{2}$ inches across at the top and bearing fifty blooms. It has been grown by Mr. Chalcraft of Derking, who

annually has a large consignment of this variety, but has never before seen one develop its growth in such a curious manner.

CHARLES W. CROSBY.

[The photograph of the fasciated stem of the *Lilium* was unfortunately not suitable for reproduction. We have seen several instances of fasciation in Lily stems this year.—ED.]

SPIRÆA GIGANTEA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The illustration on page 174 well portrays this giant *Spiræa*; it is one of the noblest of the genus, and especially suitable for the waterside. In the gardens at Westwick Hall in Norfolk I recently saw a fine group of this *Spiræa* growing on a north-west border. The growth was fully 8 feet high and the flower-heads of huge size; it certainly enjoyed the sandy peaty soil of this garden, which is so favourable to hardy plants generally.

E. MOLYNEUX.

NURSERY GARDENS.

MESSRS. BLACKMORE & LANGDON'S TUBEROUS BEGONIAS.

CLOUR in the flower garden is all important nowadays, and largely for this reason the tuberous Begonia has leaped into popularity. There can be no doubt about its being in high favour with both amateur and professional gardeners, for beds and borders in public parks and private pleasure grounds, city window boxes, and suburban gardens are bright with a brilliant and continued colouring that was unknown in the palmiest days of the zonal Pelargonium. But to gain some idea of the value of the tuberous Begonia as a summer flower, to realise the wealth of colour and the infinity of shades and tints that its varieties possess, and to have before one unmistakable evidence as to its floriferousness and the persistence of the blooms, one must see

A BEGONIA FARM,

and such a term may be not inaptly applied to the nurseries of Messrs. Blackmore and Langdon, which are situated on Twerton Hill, overlooking the ancient town of Bath. Immediately upon

entering the nursery gates you are confronted by a mass of colour that only the tuberous Begonia can give at this season of the year; planted in long narrow beds, with just a small pathway between them, they make

RIBANDS OF RED AND YELLOW, and white and pink and scarlet, and other shades of colour impossible almost to define. The flowers are held boldly and erect on stout stalks, so that their form and colouring are fully displayed. One of Messrs. Blackmore and Langdon's persistent aims in Begonia culture has been to produce flowers that are properly displayed on stout stalks, and how well they have succeeded is shown in the remarkable sight the Begonias now make in their Twerton nursery. Among the many thousands of plants cultivated here, of course, annually there are some that must be weeded out, but, generally speaking, the strain has reached a high standard of excellence through careful and continuous selection in the right direction, and it is safe to say that a packet of Blackmore and Langdon's seed will produce flowers of rich and varied colours that "look one in the face." Unless a tuberous Begonia does this it is useless from the point of view of

the flower gardener who wants to make bold masses. It is interesting to learn that this splendid display of flowers, practically from one end of the nursery to the other, is chiefly made by plants that were raised from seed sown last January. The seedlings were grown on, gradually hardened off, planted out late in May and early in June, and commenced to flower in July. Ever since they have been in flower, not one or two here and there, but

TUFTS OF BLOSSOM,

and they will remain rich groups of colour until the frost spoils their beauty. And not only in the mass are these Begonias very beautiful, but the individual flowers will bear looking into, so exquisite is the form and attractive the colouring. It is not difficult to find among them blooms that are of such perfect shape and beautiful tints as to be comparable only to Tea Roses or Camellias. This is no imaginative picture, for the clearly-chiselled pure-tinted tuberous Begonias of to-day are very different from those of a few years ago. We saw some that could be more accurately likened to a *Nymphaea* than any other flower, so broad and thick were the petals. And then the variety of forms to be found among them—

SINGLE, DOUBLE, CRESTED, FRILLED, AND FRINGED—

all these are now recognised by Begonia growers, while of the shades of colour that are represented the pen fails adequately to give an impression. They must be seen to be appreciated. But in Messrs. Blackmore and Langdon's nursery, even more striking, perhaps, than the multi-coloured riband beds, are those devoted to the best-named varieties, each planted separately. They make a wonderful show; not an inch of soil is to be seen between the plants, and far fewer leaves than flowers; in fact, in one or two instances the beds were literally

HUGE POSIES OF FLOWERS,

and the colours bright, clear, and distinct. These are specially selected named bedding varieties, and have to be increased by cuttings, for, of course, they could not be relied upon to come absolutely true from seed. As showing the different results obtained by a natural method of propagation, *i.e.*, by seed and by an artificial one, *viz.*, by means of cuttings, many thousands of fine plants in flower raised from seed sown early in the year were pointed out in contrast to those raised from

cuttings last year, the nine months old seedlings were much finer plants than the eighteen months old cuttings. An interesting point about the masses of named bedding varieties is that the tubers were not started in heat, but were planted direct in the beds early in May, and the plants began to bloom in mid-July. The most important point in the successful culture of tuberous Begonias is to

KEEP THEIR ROOTS COOL AND MOIST.

The flowers drop quickly if the roots are in dry soil. Directly after planting the surface should be mulched with cocoa-nut fibre or peat moss litter, preferably the latter, for it acts as a manure also. Among the many splendid named varieties we saw, and that are unsurpassed for massing, are the following, which can be confidently recommended: Marquis of Stafford, deep crimson, very free; R. B. Parsons, deep pink, very fine; Argus (which received an award of merit from the Royal Horticultural Society's floral committee on the 6th ult.), bright scarlet, a dwarf but vigorous grower; Gladiateur, the finest crimson bedder; Calliope, a beautiful light pink flower of very good form; Hollyhock, pink, very free; Mrs. French, wonderfully profuse, creamy white; Hilda, salmon; Lord Langton, bright scarlet; Orion, orange-scarlet; and Rev. E. Lascelles, yellow. A new bedding Begonia called Bavaria (award of merit, Royal Horticultural Society), has single rosy carmine flowers, freely produced on dwarf bushy plants. Among the new double Begonias for 1904 are John Milburn, dark glowing crimson; Avalanche, pure white; Countess of Warwick, perfectly formed flowers of bright orange colouring; Winnie Cook, salmon pink; Mrs. M. B. Castle, large blush, reverse of petals pink; Mrs. E. W. Smith, salmon; Polite, light rose-pink; all of exceptional merit. We might justly write much more about the tuberous Begonias, but we must say something also about

THE CARNATIONS,

of which Messrs. Blackmore and Langdon have a very fine collection. They grow some 100,000 plants in many beautiful varieties. Of these we might specially mention the new border Carnation Alma, a Clove-scented crimson of vigorous growth, which received an award of merit from the Royal Horticultural Society in 1903. Master F. Wall is another border sort that should be in every garden. It is a large blush white flower, and the plant is a strong grower. The Hon. Lady Neeld is a beautiful yellow ground fancy flaked with lavender, orange, and white. William Tylee, a rich yellow ground fancy, marked with rich crimson and purple, is very handsome, and so are Rosina, bright rose self; Mrs. Wall, large yellow ground fancy, streaked with lilac rose; Richness, one of the brightest and most handsome Carnations in cultivation (first-class certificate from National Carnation and Picotee Society, July, 1903), yellow ground fancy, edged and striped with scarlet; Mrs. Rotherham, buff ground fancy, edged and flaked with lavender; and Mr. J. Pitts, yellow ground fancy, edged and marked with rose. Of Tree Carnations Messrs. Blackmore and Langdon think most highly of Enchantress of flesh-pink colouring, one of the finest of the American varieties. With a brief allusion to the Cyclamens and early-flowering Chrysanthemums,

SOME 10,000 VIOLET PLANTS,

are grown, among them being the new varieties Pearl Robe, reddish purple; Mr. Leopold de Rothschild, similar to but said to be finer than Luxonne; and Mrs. Arthur, a double flower of rather deeper colour than Lady Hume Campbell; the same number of Polyanthuses, an excellent plot of

Strawbery St. Antoine de Padoue, from which many delicious fruits are gathered daily, and two Potatoes that are remarkable for their cropping qualities, viz., Duchess of Cornwall and Conquering Hero. We must conclude our notes about Twerton nursery. Tuberous Begonias and Carnations are chiefly grown there, and, as usually happens when skill and care are concentrated in one direction, they are grown uncommonly well.

A GENERAL CALENDAR.

FLAME FLOWER (TROPÆOLUM SPECIOSUM).—This gorgeous climber is doing better in Norfolk this season than ever I remember to have seen it, and when it is happily placed it is one of the most interesting plants imaginable. It thrives best in a deep rich alluvial soil, consisting largely of leaf-mould and loam. Old potting soil suits it well; it prefers a cool, moist, and rather shady position, and should be sheltered from strong winds. Now is the best time for transplanting it, for if done before the soil loses most of its warmth the fleshy roots will soon establish themselves. On the other hand, if left until a later period I have invariably found that they go mouldy and soon rot away.

Wallflowers.—These are among the most indispensable flowers we have. A few dozen of the best plants of the earliest sorts should now be potted up, press the soil firmly, and give the plants a good watering. Then place them in a cool frame and keep close and shaded for a few days. When the plants recover a little air should be given, and the lights may soon be taken off altogether; the plants should be kept in a cool greenhouse through the winter months, then in the early spring they will yield a wealth of fragrant blossoms.

Pansies.—Where a suitable position can be given these will give an uninterrupted display the whole of the summer if attention in watering and mulching be given. Now is a good time to propagate. Cuttings 2 inches or 3 inches long should be taken from the base of the plant, where plenty of young shoots are usually found at this time of the year. Dibble them in rows 2 inches apart and give a gentle watering. Keep the frame or handlight closed for a time until it can be seen that the plants are growing, when air should be given them to induce a sturdy growth. The following

will be found useful and showy varieties: Mrs. Heale, yellow; Purple King, fine and very free flowering; Blanche, white; Countess of Hopetoun, dwarf, one of the best; Devonshire Cream, a charming variety; Primrose Dame, self; Kitty Hay, deep yellow; John Quarton, light mauve self, fine for bedding.

Hardy Fruits.—The high winds of September did considerable damage to the orchards in this district, causing a number of the fruits to fall. Striped Beaufin Apples and Catillac Pears that should have hung on the trees for at least another month were brought down. Intending planters should learn a lesson from this, and not plant these heavy kinds of Apples and Pears where the orchards are exposed to high winds. All except the latest kinds are now gathered. Of both Apples and Pears some should be allowed to hang as long as possible—such varieties as Norfolk Beaufin, Nonpareil, Easter Pippin, and other long-keeping sorts. These in sheltered places will continue to develop for some time, and will be more useful later on. The flavour of late Pears, either on walls or pyramids, is much improved if the fruit is allowed to hang as long as possible. Great care should be taken to protect the fruit from birds, as these are likely to pick holes in them, by which the wet enters, causing them to rot wholesale.

Tomatoes.—These in the open air must be carefully watched. Gather the fruit dry daily, directly it begins to change colour, finishing it off indoors. On the first indication of anything like frost, cut off or pull up the plants bodily, and hang them in any fairly warm greenhouse or shed, where the bulk of the fruit will ripen in due course.

Norwich.

T. B. FIELD.

THE INDOOR GARDEN.

TROPÆOLUM AZUREUM.

HOW seldom does one see this little greenhouse climber in good condition, indeed it appears to be almost unknown to the majority of flower lovers. It is a very old inhabitant of our gardens, having been introduced into this country from Chili in 1842. Probably one reason why this charming little climber is not so much grown as one might expect is that the growth is not by any means robust. The hulbs never come so large as those of its relative *T. tricolorum*, the



GROUP OF SINGLE SEEDLING BEGONIAS.

stems being proportionately weaker. As a natural sequence root action is much more feeble, so that great care must be given as regards choice of soil, watering, and other cultural details. Having had considerable success with its culture, I find that the soil must be such as to allow of a free root run and that would not be likely to become sour during the winter.

A compost of equal parts of loam and leaf-soil, with a slight addition of peat in small lumps, suits the *Tropæolum* well. The drainage must be very good, putting some rough material on the crocks to keep it open. For a full-sized bulb a 7-inch pot is quite large enough, as the object is to get the soil well filled with roots by the time buds commence to form. A good plan is to pot in moist soil and plunge the pots to the rims in a cold frame; in this way no watering is needed, and the soil being maintained in an uniformly moist condition roots are more freely emitted from the bulbs. I first made acquaintance with this little climber many years ago in Germany, and I thought then as I still think that it is one of the loveliest greenhouse flowers in cultivation. The flowers have not the long spur that distinguishes

the highest possible award, and it would have readily secured a first-class certificate had more particulars been furnished as to its cropping qualities.

As regards its parentage, what could be better than Ribston Pippin and Peasgood's Nonsuch. The last mentioned is a splendid Apple, but at times one of the shyest fruiters in a young state, and, unfortunately, the Ribston is none too long lived. The new Apple referred to differs from both; in size it more resembles Peasgood's; the quality, though excellent, is not much like that of the Ribston. Indeed, in my opinion it is a first-rate cooking Apple, but not suitable for dessert. The colour is pale yellow, and the shape conical, not unlike Ribston in this respect, and the flesh is very white and juicy.

As an exhibition Apple it will find many admirers, and will become a great favourite. It is certainly a distinct gain to get such a fruit, for, though we have no lack of good Apples at this season, there is none of

the summer and abundance of sunshine. We had the rainfall, but it was not light, and the other extreme in the way of sunshine, and therefore in the eyes of the pessimists the outlook for 1904 was not promising.

Nature has, however, a knack of upsetting theories when she is in the mood, and we were more hopeful as the abundance of fruit-buds noticeable on the trees was encouraging. Again, some people remembered the fact which the theorists overlooked, that the trees had enjoyed a rest. The deadly spring frosts blighted the hopes of a crop, and being free from the strain of fruit bearing the trees were engaged throughout the season in storing up a reserve of forces, which they have since been able to draw upon. Some trees perhaps grew too rank, but the pressure of this season's burden has checked them again, and in the case of many weakly specimens the spring frosts of 1903 were a blessing in disguise, because they were enabled in the wet summer which followed to make the growth necessary to their re-establishment. In short, then, last season was practically fruitless, but the trees were having a rest.

September this year is dying hard, and the month gives one the impression that it is determined to keep up the reputation of its predecessors in the way of weather, which at the moment of writing is summer-like. Everyone is agreed that we have had a glorious summer, and recollections of last year have made us appreciate it all the more. One after another the fruit crops have followed, and we have the satisfaction of knowing that there have been no real, and only a few comparative, failures. In short, Nature has been kind all the way through, and she seems to be engaged in a grand effort to make the dying days of summer the most beautiful.

Perhaps the present moment, when we are in the flush of the harvest, seems hardly opportune for discussing what may happen another season, but last year at this time it was an absorbing topic and was allowed, as it gave some ground for hope, and without the capacity for hoping gardeners and fruit growers would be poor creatures. The contrasts are great, for whereas last September we were looking back on a miserable summer, and surveying fruitless trees and empty fruit-room shelves, now we have the recollections of a delightful season, and the puzzle is to know where to store the harvest of fruit. The sun, which has shone so persistently all the summer, and has not yet lost its power, ought to do great things in ripening up the wood and ensuring plump fruit-buds, if theory is to be relied on; but the reckonings of theory, as we have already learnt, can be readily upset by the workings of Nature. The question is, Can the trees which have been and are so heavily laden this season be expected to do as much next year, even supposing that climatic conditions are favourable? This remains to be seen, but the experience of good fruit years in the past being followed by seasons of comparative scarcity seems to prove that with fruit under cultivation the strain of a heavy crop has its effect on the bearing capacities of the trees the following year.

I have recently passed through a well-known Plum-growing district, in which Victorias are largely represented, and have seen hundreds of trees simply pulled out of all shape, and laden to breaking point with fruit. A few weeks ago they were propped and tied up in various ways to prevent the branches from breaking, but now the fruit is all gathered the trees present a sorry-looking appearance. They seem to have no energy left. What effect has the enormous strain had on the trees, and can they be expected to give a similar return next year, even supposing that the climate is all that can be wished? On the face of it one cannot reasonably expect it, and perhaps it might be possible to do away with these gluts of stone fruit some years and famines in others, if the fruit, when so thickly clustered on the trees, could be thinned out to moderate proportions, as the energies of the trees would not be so heavily taxed, and there would be more likelihood of getting regular moderate crops, instead of a glut one season and a famine the next.



THE NEW APPLE REV. W. WILKS.

(Shown by Messrs. Veitch and Sons before the Royal Horticultural Society on the 20th ult., and given an award of merit.)

its congener tricolorum, and they are of a lovely blue tint with white centre. They are so different from flowers of the *Tropæolums* generally that one scarcely realises that this plant is a member of the genus.

Bylect.

J. C.

better appearance, and its cooking qualities should make it a great favourite with growers.
G. WYTHES.

FRUIT CROPS AND SEPTEMBER SUNSHINE.

ABOUT this time last year, when September was helping the season to earn its evil reputation as being one of the wettest on record, many well-disposed persons who pin considerable faith in theories glanced at the rank, sappy-looking growths made by the fruit trees during the summer and pessimistically shook their heads at the prospect. According to the theory on which they based their calculations, unless wood is well ripened in the autumn it is unreasonable to expect a crop the following season, and in order to get wood in the desired state of ripeness it is essential to have a light rainfall during the latter half of

THE FRUIT GARDEN.

NEW APPLE THE REV. W. WILKS.

MESSRS. JAMES VEITCH have reason to be proud of the new Apple named the Rev. W. Wilks. It was placed before the fruit committee of the Royal Horticultural Society on the 20th ult., and obtained an award of merit owing to its excellence. Such a beautiful fruit deserved

The force of this argument is illustrated in the case of fruit grown under the direct control of the cultivator. Take Peaches and Nectarines for instance. Suppose these trees were allowed to carry the crops under glass which thousands of fruit trees of all kinds in gardens and orchards have done this year, would they be as heavily laden the next? Of course not, and frequently when gardeners are discussing the lightness of a crop on an indoor Peach, Nectarine, or Grape Vine, do they not frequently attribute the cause to the fact that they were over cropped the previous year? Everyone knows how essential judicious thinning is with fruit trees growing under glass in order to secure regular even crops, and yet if a tree growing outdoors fails after bearing a burden which is really too great for it, one hears it put down to unripened wood or some vagary of the weather.

It seems likely, then, that to some extent at any rate the abundance of this year's fruit harvest is the natural following of last season's famine, and particularly so in the case of stone fruit. Apples are more general in their habits, and though many trees are heavily laden, where there is health and vigour there is good promise for an abundance of fruit-buds.

Still the thinning theory may be applied here as in other cases. Apples run small because there are so many on, is the general complaint this year. Just so, but in the cases where a kindly hand removed a portion of the fruit, or that common enemy, the codlin moth caterpillar, acted the part of a friend to the tree, by boring some of the fruits and causing them to fall, the remainder of the crop developed to their full proportions, and these are the specimens which at the close of September are being saved for the autumn shows and are fetching the highest price in the market.

Finally, the champions of the ripened wood theory have a grand chance of proving their arguments, as the September sunshine this year is doing all that sunshine can to help the ripening process, and how much next year's crop will be affected by it is something which remains to be seen. G. H. H.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY'S GREAT FRUIT SHOW.

DIVISION I.—GARDENERS AND AMATEURS ONLY.

Nine dishes of ripe dessert fruit, six kinds at least: First, Mr. Goodacre, gardener to the Earl of Harrington, Elvaston Castle Gardens, Derby. The Pitmaston Duchess Pears, Black Hamburgh and Muscat of Alexandria Grapes, Golden Eagle Peach, and Allington Pippin Apple were excellent. A very large specimen of Melon Blenheim Orange was included. Mr. J. Lock, gardener to the Hon. Justice Swinfen Eady, Weybridge, was second, Marguerite Marillat Pear and Humboldt Nectarine being very good dishes. Mr. J. McPherson, gardener to the Earl of Londeshorough, Market Weighton, was third. There were no more entries.

Six dishes of ripe dessert fruit, four kinds at least: First, Mr. W. Mitchell, gardener to J. W. Fleming, Esq., Chilworth Manor, Romsey. Apple Worcester Pearmain, Peach Sea Eagle, Pear Pitmaston Duchess, and Grape Pince were very good dishes. Mr. J. Dawes, gardener to Lady Biddulph, Ledbury, was second. Melon Hero of Lockinge, Humboldt Nectarine, and Pear Marguerite Marillat were well shown. Mr. W. H. Bacon, gardener to Sir Marcus Samuel, Bart., Maidstone, was third. Gros Colmar Grape and Marguerite Marillat Pear were the best dishes. There were three more entries.

GRAPES.

Black Hamburgh, three bunches: First, Mr. W. Mitchell, Chilworth Manor Gardens, with fruit splendidly coloured, although the bunches were not very shapely; second, Mr. W. Harrison, Hallingbury Place Gardens, Oxon; third, Mr. J. H. Goodacre. There were three more entries.

Mrs. Pince, three bunches: First, Mr. W. Mitchell, Chilworth Manor Gardens, with very good fruit, perfectly finished; second, Mr. W. Camm, gardener to Major Hibbert, Rugby, with large, very poorly coloured bunches. No more entries.

Alicante, three bunches: First, Mr. H. H. Brown, gardener to G. C. Raphael, Esq., Englefield Green, with large bunches well coloured, though the berries were small; second, Mr. W. H. Bacon, gardener to Sir Marcus Samuel, Maidstone, with fine bunches not so well coloured; third, Mr. W. Howe, gardener to Lady Tate, Streatham. No more entries.

Madresfield Court, three bunches: First, Mr. W. Mitchell, whose fruit was splendidly finished; second, Mr. W. Taylor, gardener to C. Bayer, Esq., Forest Hill; third, Mr. Goodacre. One more entry.

Any other black Grape, three bunches: First, Mr. W. Mitchell, who showed Gros Maroc with very large, well-coloured berries; second, Mr. H. H. Brown, gardener to G. C. Raphael, Esq., Englefield Green, with very good Lady

Downe's; third, Mr. W. Peters, gardener to H. P. Sturgis, Esq., Leatherhead, with Gros Maroc. Four more entries.

Muscat of Alexandria, three bunches: First, Mr. W. Taylor, Forest Hill, with very good, well-coloured bunches; second, Mr. W. Mitchell; third, Mr. Goodacre. There were five more entries.

Any other white variety, three bunches: First, Mr. W. Taylor, Forest Hill, with Chasselas Napoleon very well shown; second, Mr. J. Brown, gardener to Joseph Drakes, Esq., Market Rasen, with Golden Queen; third, Mr. G. Beech, gardener to John Barker, Esq., Bishop's Stortford, with Golden Queen also.

Collection of hardy fruits (thirty dishes), distinct, grown in the open: First, Mr. W. H. Bacon, gardener to Sir Marcus Samuel, Bart., Maidstone, who showed excellent Apples Blenheim Pippin, Peasgood's Nonsuch, Mère de Ménage, and Warner's King; Pears Triomphe de Vienne, General Todtleben, and Pitmaston Duchess, as well as good Peach Sea Eagle, Plums, Damsons, Strawberry St. Joseph, Brown Turkey Figs, &c.; second, Mr. E. Coleman, gardener to T. L. Boyd, Esq., Tonbridge; his Apples and Pears were very fine.

DIVISION II.—NURSERYMEN AND MARKET GROWERS ONLY.

For an exhibit of fruit grown out of doors, to fill 24 feet run of 6 feet tabling, Messrs. George Bunyard and Co., Maidstone, were first. Many very fine dishes were comprised in their collection, e.g., Apples King of the Pippins, Bismarck, Hereford Crimson Queening, Cox's Pomona, Calville Rouge, Precoce, Wealthy (all finely coloured), Golden Spire, Royal Jubilee, and Lord Derby; Pears Conference, Marguerite Marillat, Triomphe de Vienne, Beurre Jan Van Geert, Pitmaston Duchess, and others. Messrs. Cannell and Sons, Swanley, Kent, were second. Their exhibit contained many excellent dishes, the Apples being finely coloured. Cellini, Lord Derby, Emperor Alexander, Peasgood's Nonsuch, Gascoyne's Scarlet Seedling, and others were beautiful fruits. Messrs. W. Poupard and Sons, market growers, Twickenham, were third; they showed fruits in boxes and baskets. There were several other entries in this class, all the exhibits being good.

Fruit grown entirely out of doors, to cover 16 feet run of 6 feet tabling. The first prize in this competition was won by Mr. J. Basham, Bardsley, Mon. The finest Apples and Pears were boldly arranged in baskets, while around the margin were dishes of miscellaneous fruits. Such Apples as Jolly Miller, Tamplin (local), Gascoyne's Scarlet Seedling, Crimson Queening, and Gravenstein were splendidly coloured. Ecklinville Seedling, Peasgood's Nonsuch, The Queen, and others were very finely shown. Among Pears Souvenir du Congrès was splendid. The second prize was won by Mr. G. Mount, Canterbury, whose exhibit also contained many excellent dishes. Apples Allington Pippin, Lane's Prince Albert, Tower of Glamis, Peasgood's Nonsuch, Pears Marguerite Marillat and Pitmaston Duchess were among the best. Messrs. Laxton Bros., Bedford, were third. The Apples in this collection were also very good. There were several other entries in this class, and the exhibits were conspicuous features in the hall.

For an exhibit of orchard house fruit and trees, to cover 24 feet run of 6 feet tabling, Messrs. George Bunyard and Co., Maidstone, were first. This exhibit consisted of some forty fruit trees in pots, and dishes and baskets of fruits arranged between them. Of the fruit trees Apple Gascoyne's Scarlet Seedling carried good crops of splendidly coloured fruits, Emperor Alexander was very good, so were Lord Burghley and Peasgood's Nonsuch, while among the Pears Beurre Bosc, Doyenne du Comice, Beurre Fouquieray, and Vicar of Winkfield were very good. The dishes of fruits of Peasgood's Nonsuch were wonderfully fine, and those of Gascoyne's Scarlet Seedling were beautifully coloured. Two enormous fruits of Pear Marguerite Marillat were shown. Other good dishes were Pears Beurre Alexandre Lucas, Winter Windsor, Pitmaston Duchess, Duchesse d'Angoulême, Marie Benoist, General Todtleben, and Apples Allington Pippin, Royal Jubilee, Mother, Lane's Prince Albert, Twenty Ounce, and Washington. Messrs. T. Rivers and Son, Sawbridgeworth, were second. They exhibited of pot fruit trees Plum Rivers, Late Orange, bearing splendid crops of fruit, Pears Magnate and Conference, Apple Emperor Alexander, and Gascoyne's Scarlet Seedling, Peach Salway, and Grapes Directeur Tisserand and Golden Queen, all bearing good crops. There were some splendid fruits among the dishes of Apples and Pears; for instance, the fruits of Cox's Orange Pippin, Peasgood's Nonsuch, and Ribston Pippin were most beautifully coloured, perfect examples of these varieties. Emperor Alexander was almost equally good, and others worthy of special note were Apples Thomas Rivers, The Queen, Lady Snudeley, and Washington, Pears Souvenir du Congrès, Magnate, Princess, Durondeau, and Parrot, Plum Golden Transparent, and various Grapes.

DIVISION III.—GARDENERS AND AMATEURS ONLY.

Twenty-four Apples, distinct: First, Mr. C. Crane, gardener to Mrs. Alexander, Maidstone, with some very good dishes; second, Mr. W. Lewis, gardener to R. H. B. M. rsham, Esq., Maidstone; third, Mr. C. J. Salter, gardener to Mr. Hayward, Reigate. Some splendid fruits were shown in this class, which was well contested.

Apples, eighteen dishes, distinct: First, Mr. J. Dawes, gardener to Lord Biddulph, Ledbury. Many of the fruits were beautifully coloured; for instance, Tyler's Kernel, Gascoyne's Scarlet, Worcester Pearmain, and The Queen. Peasgood's Nonsuch, Beauty of Kent, and Warner's King were very fine; second, Mr. C. Earl, gardener to O. E. Goldsmid, Esq., Tonbridge; third, Mr. J. Challis, gardener to the Earl of Pembroke, Salisbury.

Apples, twelve dishes distinct: First, Mr. W. Wallace, gardener to Hugh C. Smith, Esq., Roehampton. King of the Pippins was a beautiful dish, and Ribston Pippin, Stirling Castle, and Annie Elizabeth were very good; second, Mr. J. Vert, gardener to Lord Howard de Walden, Saffron Walden. Peasgood's Nonsuch was finely coloured, and Warner's King unusually good.

Cooking Apples, six dishes, distinct: First, Mr. C. Crane, gardener to Mrs. Alexander, Maidstone, with very good fruits of Emperor Alexander, Warner's King, Belle du Bois, and

others; second, Mr. J. Smith, gardener to Earl de Grey, Kingston.

PEARS.

Dessert Pears, eighteen dishes, distinct: In this class there were only two entries, the first prize going to Sir Marcus Samuel, Bart., Maidstone (gardener, Mr. W. H. Bacon), who had fruit of remarkable size, including Triomphe de Vienne, Durondeau, Doyenne Boussoch, Beurre Superfin, Pitmaston Duchess, and others, all of equal quality. The second prize was won by Major Powell Cotton, Birchington (gardener, Mr. J. Cornford).

Dessert Pears, twelve dishes, distinct: There were four entries. The first prize was gained by the Rev. T. McMurdie, Woburn Park (gardener, Mr. A. Basile), who had fine examples of Souvenir du Congrès, Durondeau, Marie Louise, and Duchesse d'Angoulême; the second prize went to Mrs. Alexander, Maidstone (gardener, Mr. C. Crane); and the third to the Earl of Pembroke, Salisbury (gardener, Mr. T. Challis).

Dessert Pears, nine dishes, distinct: There were four entries, the first prize being won by Lord Biddulph, Ledbury (gardener, Mr. J. Dawes), his Pitmaston Duchess, Magnate, and Marie Louise being very fine; the second prize was gained by F. A. Bevan, Esq., Trent Park (gardener, Mr. H. Parr).

Dessert Pears, six dishes, distinct: There were eight entries in this class. The first prize was gained by C. A. Morris Field, Esq., Sevenoaks (gardener, Mr. R. Edwards), with very fine fruits; the second prize went to the Duke of Portland, Welbeck (gardener, Mr. J. Roberts).

Stewing Pears, three dishes, distinct: The first prize was gained by Major Powell Cotton, Birchington (gardener, Mr. J. Cornford), with fine examples of Catillac, General Todtleben, and Grosse Calebasse; second prize went to N. Michaelis, Esq., Tandrige Court (gardener, Mr. J. D. Simmonds), who had very fine Uvedale's St. Germain.

Peaches grown entirely out of doors, three dishes, distinct: There were twelve exhibits in this class, all being good. The first prize was gained by the Earl of Harrington (gardener, Mr. J. H. Goodacre), with fine examples of Golden Eagle, Barrington, and Exquisite; second prize was awarded to C. R. W. Adeane, Esq., Cambridge (gardener, Mr. R. Alderman).

Peaches, one dish of any one variety from the open: There were twelve entries in this class, the first prize going to Mrs. Alexander of Maidstone for a fine dish of Sea Eagle; second prize went to J. J. Morris, Esq., Oxshott (gardener, Mr. C. W. Miles), for Late Admirable.

Nectarines grown out of doors, three dishes, distinct: There was only one entry, but no award was made, the fruits not being sound.

Nectarines, one dish of any one sort from the open: In this class there were seven exhibitors, all showing well. The first prize went to Lord Biddulph, Ledbury (gardener, Mr. J. Dawes), for fine fruits of Humboldt; second prize to R. Bedingfield, Esq., Roehampton (gardener, Mr. J. Sparks), with the same variety.

Plums grown under glass, six dishes, distinct: There were two entries only, the first prize being gained by Lord Howard de Walden, Saffron Walden (gardener, Mr. J. Vert), Late Orange, Deaïsne, and Primate being very fine; the second prize went to M. R. Smith, Esq., Hayes (gardener, Mr. C. Blick).

Plums (two dessert and four cooking): In this class there were nine entries. The first prize was won by Lord Howard de Walden (gardener, Mr. J. Vert), who had Coe's Violet, Coe's Golden Drop, Pond's Seedling, Grand Duke, Primate, and Monarch; the second prize went to the Earl of Stair, Dalkeith (gardener, Mr. W. Smith), his Jefferson and Goliath were very fine.

Three dishes of Gage Plums, distinct: There were five entries the Earl of Pembroke (gardener, Mr. T. Challis) being first with fine examples of Transparent Gage, Rivers' Golden Gage, and Oullin's Golden Gage; the second prize went to J. B. Fortescue, Esq., Dropmore, Maidenhead (gardener, Mr. C. Page), whose Bryanston Gage was very fine.

One dish of Coe's Golden Drop: Here there were fifteen entries. The first prize was won by the Marquis of Northampton, Castle Ashby (gardener, Mr. A. R. Searle), with very fine fruits; the second prize went to Lord Howard de Walden.

One dish of any other dessert Plum: In this class there were ten entries, the first prize going to J. K. D. Wingfield Digby, Esq., M.P., Sherborne Castle (gardener, Mr. T. Turton), who had very fine examples of Reine Claude de Bayay; the second prize was won by J. Liddell, Esq., Newbury (gardener, Mr. R. Lye), with good fruits of Jefferson.

One dish of cooking Plums, any variety: The first prize was gained by F. N. Thomas, Esq., Wannock, Polegate, with White Magnum Bonum, which were of good quality; the second prize went to Lord Howard de Walden for splendid fruit of Monarch. There were twenty entries in this class.

Damsons, three dishes, distinct: There were only two entries. The first prize was gained by G. J. Gribble, Esq., Biggleswade (gardener, Mr. A. Carlisle), with Blue Prolific, Bradley's King, and Farleigh Prolific; the second prize went to T. Clinch, Esq., Sittingbourne.

Bullace, one dish of any variety: Here again there were only two entries, the first prize going to T. Clinch, Esq., and the second prize to Hugh C. Smith, Esq., Roehampton (gardener, Mr. W. Wallace).

Morello Cherries, fifty fruits: In this class there were five entries, the first prize being won by H. F. Walker, Esq., Balcombe (gardener, Mr. J. Coles), who had remarkably fine fruits; the second prize went to J. B. Fortescue, Esq., Maidenhead (gardener, Mr. C. Page).

Grapes grown out of doors: Hugh Smith, Esq., Roehampton, was the only exhibitor in this class, and was awarded second prize for some unripe bunches.

DIVISION IV.—SPECIAL DISTRICT COUNTY PRIZES.

Gardeners and Amateurs only.

Each of these classes is sub-divided, prizes being offered for six dishes, distinct, of Apples, and six dishes, distinct, of Pears in each county or collection of counties.

W. Stowers, Esq., Sittingbourne, was first for Pears with excellent fruits of Conference, Marguerite Marillat, finely coloured; Doyenné Boussoch, King Edward, and Pitmaston Duchess. The same exhibitor took the leading place for Apples Rival, Cox's Orange Pippin, The Queen, and Peasgood's Nonsuch being fine and well coloured. The second prize was won by T. L. Boyd, Esq., Tonbridge (gardener, Mr. E. Coleman), whose best Apples were Fearu's Pippin, Cox's Orange Pippin, Bismarck, and The Queen; and the best Pears Doyenné du Comice and Triomphe de Vienne.

Open to Growers in Surrey, Sussex, Hants, Dorset, Somerset, Devon, and Cornwall.

For Apples: B. H. Hill, Esq., Crediton (gardener, Mr. Lock), was first with grand fruits of Peasgood's Nonsuch, Emperor, and Mère de Ménage; Cox's Orange Pippin was also good; second, J. D. Wingfield Digby, Esq., M.P., Sherborne Castle (gardener, Mr. Turton), with fine specimens of Aonie Elizabeth and Peasgood's Nonsuch. For Pears: F. W. Thomas, Esq., Wannock, came first, his Marguerite Marillat and Triomphe de Vienne being very handsomely coloured; Pitmaston Duchess was also very good; second, J. D. Wingfield Digby, Esq., Sherborne Castle, with a very even lot, in which Durondeau, Doyenne Boussoch, and Beurre Superfin were excellent. There was close competition in these classes.

Open only to Growers in Wilts, Gloucester, Oxford, Bucks, Beds, Herts, and Middlesex.

For Apples: A. G. Wright, Esq., Newent (gardener, Mr. Davies), was first, his Worcester Pearmain, Peasgood's Nonsuch, The Queen, and Gascoyne's Scarlet being very fine; second, G. J. Gribble, Esq., Biggleswade (gardener, Mr. A. Carlisle), Emperor Alexander and Peasgood being exceptionally good. For Pears, Mrs. H. St. V. Ames, Westbury-on-Trym (gardener, Mr. Bannister), was first, Doyenne Boussoch and Beurre Hardy being the best specimens; second, G. J. Gribble, Esq., whose excellent fruits were all unnamed.

Open only to Growers in Essex, Suffolk, Norfolk, Cambridge, Hants, and Rutland.

For Apples: R. M. Courtald, Esq., Colne Erigant (gardener, Mr. C. Taylor), was first, with brilliantly coloured fruits of Bismarck, Gascoyne's Scarlet, Allington Pippin, and Cox's Orange Pippin; second, Colonel G. B. Archer-Houlton, Bishop's Stortford, who had a notable dish of Chas. Ross. For Pears Colonel the Hon. C. Harbord, Norwich (gardener, Mr. W. Allan), was first, Marguerite Marillat, Doyenne du Comice, and Doyenne Boussoch being his best dishes; second, Colonel Archer-Houlton.

Open to Growers in Lincoln, Northampton, Warwick, Leicester, Notts, Derby, Staffs, Shropshire, and Cheshire.

For Apples: J. Lea, Esq., High Bebbington, was first, Cox's Orange Pippin, Peasgood's Nonsuch, and Gascoyne's Scarlet being the best; second, the Duke of Rutland, Belvoir Castle (gardener, Mr. W. Divers), whose fruits were of finer colour altogether. Duchess's Favourite, Ribston Pippin, Peasgood's Nonsuch, The Queen, and Gascoyne's Scarlet were admirable examples. For Pears the Duke of Bedford took first place with excellent dishes of Beurre Superfin, Durondeau, and Souv. du Congrès; second, Major Hibbert, Rugby, with fine fruits of Triomphe de Vienne, Williams' Bon Chrétien, and Durondeau. There was very keen competition in these classes.

Open to Growers in Worcester, Hereford, Monmouth, Glamorgan, Caermarthen, and Pembroke.

For Apples: First, H. C. Moffatt, Esq., Ross (gardener, Mr. Spencer), his best dishes being Tyler's Kernel, Peasgood's Nonsuch, and Winter Pearmain; second, R. N. Whiting, Esq., Hereford, with fine Wealthy, Cox's Orange Pippin, and splendid Peasgood's Nonsuch. For Pears: First, H. C. Moffatt, Esq., Triomphe de Vienne, Doyenne de Merode, and Souvenir du Congrès being the best; second, the Downager Lady Hindlip, Droitwich (gardener, Mr. C. Crooks), with Louise Bonne de Jersey, Doyenne du Comice, and Pitmaston Duchess finely shown.

Open to Growers in the other Counties of Wales.

For Apples: First, Colonel Cornwallis West, Ruthin (gardener, Mr. H. Forster), who had good dishes of Alfriston, Peasgood's Nonsuch, Ribston Pippin, and Cox's Orange Pippin. The same exhibitor was first for Pears, Clapp's Favourite, and Beurre Hardy being the best.

Open only to Growers in the Six Northern Counties of England and in the Isle of Man.

For Apples: First, the Earl of Lathom, Ormskirk (gardener, Mr. Ashton), who had fine dishes of Tyler's Kernel, Warner's King, and Peasgood's Nonsuch. The first prize for Pears also went to this exhibitor, who staged fine dishes of Williams' Bon Chrétien, Souvenir du Congrès, Margaret Marillat, &c.

Open only to Growers in Scotland.

For Apples: First, the Duke of Richmond and Gordon, Gordon Castle, who had Peasgood's Nonsuch, Newton Wonder, Worcester Pearmain, and Allington Pippin, all in the condition; second, the Earl of Galloway, Gariestown, whose best dishes were James Grieve, The Queen, Peasgood's Nonsuch, and Worcester Pearmain. For Pears the positions of the two exhibitors were reversed, the Earl of Galloway coming first with Marguerite Marillat, Gratioli di Jersey, and Williams' Bon Chrétien, while the Duke of Richmond and Gordon had Pitmaston Duchess, Marie Louise, Beurre d'Amanlis, and others.

Open only to Growers in Ireland.

For Apples: First, Viscount Duncannon, De-borough, Piltown (gardener, Mr. J. G. Weston), whose best dishes were The Queen, Bismarck, Worcester Pearmain, and Colonel Vaughan's Pippin.

DIVISION V.—SINGLE DISHES OF FRUIT GROWN IN THE OPEN AIR.

Gardeners and Amateurs only.

CHOICE DESSERT APPLES.

Allington Pippin: First, W. Stowers, Esq., Sittingbourne, with a very handsome dish; second, F. W. Thomas, Esq.,

Polegate. There were some two dozen competitors in this class.

American Mother: First, H. C. Moffatt, Esq., Ross (gardener, Mr. Spencer); second, W. R. Page, Esq., Clacton-on-Sea, both showing well in a large competition.

Elenheim Orange (small, highly-coloured fruits to pass through a 3-inch ring): First, R. J. Lambert, Esq., Oxshott (gardener, Mr. Reid); second, J. Colman, Esq., Gattin Park (gardener, Mr. W. Bound). Very handsome fruits in each case. Some twenty-eight dishes were staged.

Chas. Ross: First, Mr. G. Pyoe, Topham; second, Mr. W. Stowers, Sittingbourne. The ten dishes shown were all good, the leading ones splendid.

Cox's Orange Pippin: First, Lord Poltimore, Exeter (gardener, Mr. I. H. Slade), with a very fine dish; second, Mr. F. B. Parfitt, Caversham. Some three dozen dishes were staged.

Egremont Russet: First, Walpole Greenwell, Esq., Marden Park; second, J. L. Boyd, Esq., Tonbridge.

James Grieve: First, Colonel Archer-Houlton, Dishop's Stortford; second, Mr. R. M. Whiting, Crediton.

King of the Pippins: First, Mr. Stowers, Sittingbourne; second, J. L. Newland, Esq., Byfleet. Many good dishes were staged.

Lady Sudeley: First, R. D. Wingfield Digby, Esq., with grandly coloured fruits; second, G. J. Gribble, Esq., Biggleswade.

Margil: First, A. W. Wright, Esq., Newent; second, G. J. Gribble, Esq.

Ribston Pippin: First, Sir Oswald Mosley, Bart., Burton-on-Trent (gardener, Mr. G. Woodgate); second, Walpole Greenwell, Esq., Maiden Park. Over thirty dishes were staged of this variety.

Worcester Pearmain: First, J. B. Fortescue, Esq., Maidenhead (gardener, Mr. Page); second, G. J. Gribble, Esq. Any other variety not named above: In this class the first prize went to Cornish Aromatic, shown by the Hon. Justice Swinfen Eady, Weybridge; the second prize went to Mr. W. Stowers, Sittingbourne, who had Rival, a finely coloured and handsome fruit; third, also to Rival, from Colonel Archer-Houlton.

Bismarck: First, J. R. D. Wingfield Digby, Esq., Sherborne Castle; second, E. W. Caddick, Esq., Ross, Hereford.

Elenheim Orange: First, the Hon. Justice Swinfen Eady, Weybridge (gardener, Mr. J. Lock), with grand fruits; second, H. C. Smith, Esq., Rushampton. Over twenty dishes were staged.

Bramley's Seedling: First, Colonel Archer-Houlton; second, E. W. Caddick, Esq. Many fine dishes were staged in this class.

Ecklinville Seedling: First, Mr. R. M. Whiting, Hereford; second, J. Colman, Esq., Reigate.

Gascoyne's Scarlet: First, Mr. F. W. Stowers, Polegate; second, Mr. W. Stowers, Sittingbourne.

Golden Noble: First, A. W. G. Wright, Esq., Newent; second, M. Michaels, Esq., Tandridge Court.

Grenadier: First, J. B. Fortescue, Esq., Maidenhead. Lane's Prince Albert: First, Colonel Archer-Houlton, with a superb lot of fruits.

Lord Derby: First, Mr. W. Stowers, Sittingbourne.

Mère de Ménage: Here again Mr. Stowers took the lead.

Newton Wonder: First, Earl of Lonsborough, Market Weighton (gardener, Mr. J. C. McPherson), with perfect examples; second, the Duke of Rutland; third, Colonel Harbord, Norwich. This class was open to exhibitors in Cardigan, Radnor, Shropshire, Stafford, Warwick, Bedford, Northampton, Cambs, Essex, or counties further north. (Prizes given by Messrs. Pearson and Sons, Loddham, Notts.)

Newton Wonder (open to exhibitors living south of the before-named counties): First, Mr. W. Stowers, Sittingbourne; second, Earl of Pembroke, Salisbury. The fruit in both these classes was of excellent quality and of a high standard throughout. (Prizes by Messrs. Pearson and Sons.)

Peasgood's Nonsuch: First, Hon. W. Lowther, Wickham Market (gardener, Mr. A. Andrews); second, C. E. Hanbury, Esq., Ware, both having superb dishes. Two dozen dishes were staged of this noble fruit.

Putta Seedling: First, J. R. D. Wingfield Digby, Esq.

Stirling Castle: First, Colonel Archer-Houlton.

Waltham Abbey Seedling: First, E. W. Caddick, Esq.

Warner's King: First, N. R. Page, Esq., Clacton-on-Sea.

Any other variety: First, Colonel Waide, Maidstone, with a fine lot of Rambour Papaleon.

CHOICE DESSERT PEARS.

Beurre Hardy: First, Mrs. H. St. V. Ames, Westbury-on-Trym.

Beurre Superfin: First, J. R. D. Wingfield Digby, Esq.

Comte de Lamy: First, Hon. C. Harbord.

Doyenne du Comice: First, Hon. C. Harbord.

Durondeau: First, Colonel Warde, M.P.

Emile d'Heyst: First, J. R. D. Wingfield Digby, Esq.

(gardener, Mr. Turton), who had a fine dish.

Fondante d'Automne: First, H. C. Moffatt, Esq., Hereford.

Louise Bonne de Jersey: First, E. A. Lee, Esq., Liphook, whose dish was excellent.

Marguerite Marillat: First, Mr. W. Stowers, Sittingbourne, with a dish of perfect fruit.

Marie Louise: First, Colonel the Hon. C. Harbord, Norwich.

Pitmaston Duchess: First, J. B. Fortescue, Esq., Maidenhead. There were many admirable dishes.

Souvenir du Congrès: First, the Rev. J. McMurdie, Weybridge.

Thomson's: First, J. R. D. Wingfield Digby, Esq.

Triomphe de Vienne: First, H. Boyd, Esq., Tonbridge.

Williams' Bon Chrétien: First, Colonel G. B. Archer-Houlton with grand fruits.

Any other variety not named above: First, Mr. W. Stowers, with Doyenne Boussoch; second, J. R. D. Wingfield Digby, Esq., with Mme. Treve.

AWARDS OF MERIT.

Apple *Werder's Golden Reinette*.—A handsome fruit, a cross between Cox's Orange Pippin and Allington Pippin. It ripens

in October and is very prolific. From Messrs. J. Veitch and Sons, Chelsea.

Apple *Hector Macdonald*.—A very handsome Apple, reminding one of Peasgood's Nonsuch. The fruits are striped with red. From Mr. C. Ross, gardener to Colonel Archer-Houlton, Welford Park, Newbury.

Apple *King's Acre Bountiful*.—A yellow fruit, heavy cropper, and with a pleasantly brisk flavour. From the King's Acre Nursery Company, Hereford.

Pear *S. T. Wright*.—An early Pear of good flavour, a cross between Beurre Bachelier and Williams' Bon Chrétien. (Veitch).

CROYDON HORTICULTURAL SOCIETY.

BEFORE the members of the above society recently a lecture on "Fruit as a Necessary Food" was delivered by Mr. H. Cannell, V.M.H., Swanley. For the last ten years Mr. Cannell's diet has been strictly vegetarian, he said, and he was happy to say that although just before his commencement on this diet he was feeling very much an old man, yet now he felt more active, enjoyed better health, and looked at his future with brighter views in every way. Statistics, he said, all pointed to the decadence of our race. Men and women did not live as long, and while life lasted did not enjoy such good, robust health as in generations gone by. Why? Because we were deviating considerably from a natural existence. Men sometimes abstained from fruit for months together, and in so doing brought upon themselves ailments which would not exist if greater thought was bestowed on what they should eat and drink. In fruit they had enough nourishment to keep the body in proper working order, and not only this, but it created the appetite and provided everything to build up a strong constitution. The liking for fruit was a natural taste. He also emphasised its economy. At a nominal cost meals could be provided for families, whereas now the cost of living was one of the most serious items the working man had to face. With the cheaper sustenance obtained in fruit and vegetable food healthier bodies and healthier minds would naturally follow.

Mr. Robert Cannell, a son of the lecturer, explained an easy method of preserving fruit, and handed round samples of this and wholemeal bread, which were very palatable and appreciated by all present.

A hearty vote of thanks was unanimously accorded Mr. Cannell for his address, and also for the exhibit of fruit from his nurseries. Thanks were also conveyed to Mr. W. Lintott, Marden Park Gardens, for an exhibit of Begonia Marie Bouchett.

CLEPINGTON GARDENS ASSOCIATION, DUNDEE.

THE twenty-fourth annual report of the committee, submitted at the annual meeting of this association held on the 22nd ult., was of a generally satisfactory character. Owing to the absence of extraordinary repairs, the funds showed a gain of £6 13s. 4d. on the year, a considerable part of the improvement in the funds being due to the vigilance of their treasurer, who had paid great attention to his duties. The annual competition in July had been a successful one, while the gardens had been generally well kept during the year. The report was adopted, and the following officer-bearers elected: President, Mr. W. R. Ogilvie; treasurer, Mr. William Gall; secretary, Mr. A. H. Rea; committee, Messrs. J. Allan, D. Craig, J. Davidson, J. Edwards, W. Langlands, and D. Middleton.

BROUGHTY FERRY HORTICULTURAL ASSOCIATION.

THE first of the series of monthly evening meetings arranged for the winter by this association was held recently. A good feature of the meeting was the excellent little exhibition and competition, a number of cut flowers and other horticultural produce of much merit being shown. In the competition for vegetables the first prize was awarded to Mr. Joseph Dick, Heathbank Gardens, Barhill, the second being won by Mr. William Ross, The Buchties Gardens. The paper for the evening was given by Mr. James Reid, The Gardens, Duddhoe House, Dundee, his subject being "Herbaceous Plants." It was a most interesting one, and was followed with close attention, as was shown by the discussion which followed. Mr. James Slater presided.

THE KINGSTON GARDENERS' ASSOCIATION.

THE first of a winter course of lectures to be given fortnightly to the members of this newly formed society was given on Friday, the 30th ult., by the president, Mr. E. H. Jenkins, F.R.H.S., his subject being "Daffodils." In this category every member of the great Narcissus family was included. Besides a number of excellent illustrations, the lecturer was aided by a quantity of representative bulbs kindly supplied by Messrs. Barr and Son. Dealing with the history of the family, both traditional and actual, the lecturer led on to classification, the sample bulbs much helping to that aim. Their culture in gardens, with advice as to soils, suitable varieties, and methods of planting followed. Mr. Jenkins thought the less lifting practised the better, and quoted cases to show how deep and strong long-planted bulbs would become. Forcing was also concisely dealt with, and excellent advice given. A cordial vote of thanks closed the proceedings.

REDHILL AND REIGATE GARDENERS' SOCIETY.

THE fortnightly meeting was held in St. Matthew's School-room on Tuesday, the 27th ult., the lecturer being Mr. A. Trowers, who read a paper on "Spring Gardening." Over 100 members were present. The lecturer dealt very ably with the subject, and clearly showed the great pleasure to be obtained by naturalising bulbs in grass. Many pretty effects could be obtained by making a judicious selection of bulbs. This, the lecturer contended, would give a maximum of satisfaction for a minimum of trouble and expense. The lecturer strongly advised a careful selection of good bulbs. The society's certificates were awarded to Messrs. Mead, Coomber, and Peters, all of whom showed meritorious exhibits.

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THE NATIONAL POTATO SOCIETY'S EXHIBITION.

SOME remarkable facts were brought to notice on the occasion of the first exhibition of the newly-formed National Potato Society, by the chairman, Mr. A. D. Hall, M.A., who is director of the Rothamsted Experimental Station. Mr. Hall said that no less than 570,000 acres of land were devoted to Potato culture in the United Kingdom. Estimating each acre to yield five tons, he reckoned the annual value of our Potato crop to be something like £10,000,000. If the many acres of miscellaneous crops, as those grown by cottagers, allotment holders, &c., were taken into account, then £20,000,000 would be a more correct estimate of the total value of Potatoes grown in this country. Mr. Hall put the value of an acre of wheat at £12, while an acre of the best Potatoes he considered to be worth £35.

The British farmer must grow crops of a high monetary value in order successfully to cope with the heavy railway rates, working expenses, and other difficulties under which he labours, and it seems that he might do much worse than turn his attention to Potato culture. As Mr. Hall pointed out, a good deal has been said lately about the reforestation of waste land in this country; but, whereas in that case the planter has to wait years before he can expect any result from his labour and outlay (3 per cent. at the end of thirty years was given as an approximate return to be expected), the Potato grower gets quick returns and also higher prices for his produce than even the farmer does for his corn crops. It is well known that any crop grown so intensively as the Potato now is in this country, is very liable to disease, and readily succumbs to its ravages if steps are not taken either to prevent disease spreading or to stamp it out. A good deal of ignorance also prevails as to which varieties are really the best. For some time growers have put on the market varieties introduced by themselves, with the result that there are now dozens of sorts all described as of the highest quality—a state of affairs that is puzzling and also annoying to the amateur or small grower who wants to get the best Potatoes.

It is to lend a helping hand to the British farmer and the Potato grower that the National Potato Society was formed, and if the great exhibition of tubers and the enthusiastic gathering of growers from all parts of the

kingdom at the Crystal Palace on the 11th and 12th inst. may be taken to indicate the condition of this, the youngest of horticultural societies, then it is evident that it is very flourishing indeed. At the luncheon given to the judges and others one grower remarked that the Potato Society had done more towards bringing about the co-operation of the British farmers than all the writings and preachings of would-be benefactors, who urged the farmers to co-operate, but never put before them any practical suggestion.

This society has already done valuable work in establishing trial stations in different parts of the country for the purpose of testing new varieties of Potatoes. It is hoped that raisers of new varieties will co-operate with the society in this all-important work, and send samples of their introductions, so that they may be grown side by side, and thus compared with others. On behalf of his firm, Mr. Arthur Sutton said they would gladly do this, and we have no doubt that others will follow the example. The bane of synonyms is prevalent among Potatoes as well as among other plants, and, as Mr. Sutton pointed out, the only way in which to determine correctly the names of varieties is to grow them together under the same conditions. It is impossible to identify a variety solely by the tubers. The society is also doing good work in circulating information about diseases which attack the Potato, and the best preventives and remedies—matters of the greatest importance to growers. Although only formed early this year, the Potato Society already has a membership of nearly 2,000, thanks chiefly to the energy of the honorary secretary, Mr. Walter P. Wright and his co-workers, who are to be congratulated upon so successful an issue to their first year's work. It may be of interest to mention that Mr. Robert Fenn, who is eighty-eight years of age, and was the first to cross-fertilise the flowers of the Potato with a view to obtaining new varieties, was present at the exhibition.

None could fail to notice that nearly all the prizes in the competitive classes went to Scotland or the north of England. There is no doubt that the coolness and moisture that prevail in Scotland to a greater degree than south of the Tweed are peculiarly suited to successful Potato culture. Even the non-competitive exhibits, which formed the most important feature of the show, were chiefly from Scotland. A noteworthy exception was

the splendid exhibit from Messrs. Sutton and Sons, Reading, which won the Llewelyn Cup given for the best exhibit of Potatoes in the show.

SUGGESTIONS FOR THE GROUPING OF BULBS.

THERE is one most important question which exercises our minds most severely at planting-time, and which not even the most experienced gardener can summarily dismiss as unworthy of consideration, and that is, "How will it all look when in flower?" We try to think it over, and ask ourselves more questions. "Have we got them too close together or too far apart?" "Ought not that tall-growing Rudbeckia to be set back a bit?" "Won't that Spiraea spread too much and be a nuisance? Why not take it right out and put in something less aggressive, and add another plant or two to the group of Irises instead?"

Perhaps we do shift a few plants; more probably we leave the border or the rockery bed as it is. Everything looks so nice and clean and tidy, and the labels are neatness itself, if perhaps a bit "graveyardy." We can always move a thing or two later on if we have made any bad mistakes. And in the end, when the plants have responded to their good treatment and have put on their best garden-party colours, we find there is not much to find fault with after all, and we are not ashamed to show our new bit of planting to any of our visitors, however formidable and learned in horticulture they may be.

We may, indeed, afterwards do a little bit of shifting and lifting, of addition and subtraction, on the quiet, to make the thing quite perfect, and small blame to us, for it is indeed but seldom that the first arrangement of a new or a renovated scheme of planting is so absolutely successful that we can afford to leave it severely alone, and bring our friends confidently to it and say, "There!"

As with shrubs and plants, so it is with bulbs, the only difference perhaps being that it is a still more difficult job to arrange them properly and to our satisfaction at the first attempt. This leads me on to the title of my notes (or rather suggestions, for they can be no more, on such a subject), the successful grouping and arrangement of bulbs at planting time, especially in cases where we are about to employ bulbs only, in the given space. To add bulbs to an existing border or rockery already more or less occupied is to my mind a far easier matter, though even this requires much care and thought.

Most of us know and have probably decided what bulbs we shall want, and how many, approximately, of each sort, and we probably obtain them in due course. If we are only going to put in Narcissi, Snowdrops, or Tulips in clumps along the border, the thing is

simplicity itself, and, in addition, an odd corner can generally be found for a small lot of any other bulbs, or specially reserved nooks and sunny spots for our rarities. The trouble begins when we wish to launch out into a bulb "corner" in the grass, or a flowery spring "cascade" on the rockery. Then the "clump" system fails to please, and we must go about our work with far greater care and circumspection. Of course, there must be clumps, and many of them, but not of the circular "dozen-bulb" type as applied to the formal border. They must be carefully set out in outline before beginning to plant, with sticks or labels easy to see, the latter being shifted and rearranged into the most natural and pleasing irregularity, in a laudable endeavour to imitate Nature. For Nature abhors a "clump," as she does a "vacuum"; one has only to look at a bit of her planting, whether of trees or shrubs or flowers, in their wild state in the woods and meadows and on the moorland, to be made aware of that fact.

We must try and follow her style then, whether it be with a barrow-load of a thousand Narcissi, or with a tiny little packet of choice Scillas, and the result will be all the more pleasing the more closely we study and imitate her in her graceful carelessness. Let us now take the case of a portion of grassland on the lawn, or in the wild garden, which we propose to plant with bulbs only, assuming for the sake of example that there are no trees or shrubs already there which might influence and assist us in our ideas. We must arrange our bulbs somewhat in the following manner: First a big irregular mass in a chosen spot, lengthening itself out in one or more directions into points and promontories of varying size and shape; then, say, a single bulb; then a group of five; another single; a mass again; a pair; yet another huge gathering, more tightly packed for a change; and so on, until enough space has been allotted to the one particular kind of bulb, or until the basket is empty. Each mass, or constellation of stars, should seem as it were to be expanding and striving to unite with its bulky neighbours, sending out its starry messengers towards them, connecting links in the miniature flowery universe, while there should at the same time be visible a tendency of the whole system to increase and radiate outwards in irregular projecting points and broken lines of varying length and substance. This I am afraid will sound a trifle far-fetched; I hope it is not very much so. At any rate, it conveys my meaning with tolerable clearness, so I pray it may be excused.

S. G. REID.

(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, 3, Southampton Street, Strand, London.

SEEDLING MICHAELMAS DAISIES.

Mr. Archer-Hind sends a charming series of Michaelmas Daisies from his own raising, the

colours blue, rose-purple, white, and pink, but one of the most precious of all is called Coombefishacre White, a flower of rare purity. Mr. Archer-Hind says: "The original Coombefishacre prevails in most. I find it the best for crossing."

We hope this ardent gardener will long be spared to continue his interesting work.

AKEBIA QUINATA FRUIT.

We receive from Mr. Pandeli Ralli, Alderbrook, near Guildford, the curious large grey pod of fruit of *Akebia quinata*. It is interesting to receive it from this district, where fruiting is uncommon.

GLOXINIA MACULATA.

Mr. J. Mayne, Bicton, sends flowers of this interesting plant with the following note: "An old occupant of our glass structures, but seldom seen outside a botanical garden, nevertheless worthy of a place in a mixed collection of stove plants. It is quite distinct from the ordinary *Gloxinia* of to-day, in fact it is more like the *Gesnera* in growth, sending up many sucker-like shoots, varying in height from 12 inches to 20 inches. A well-grown specimen often carries eighteen individual flowers on a spike, which emanate singly from the axil of the leaf on either side, purple in colour, and of the shape of the old form of drooping or pendulous *Gloxinia*. Coming into flower in the early autumn adds value to the plant, and forms a succession to the *Achimenes*. After passing out of flower it should receive similar treatment as that afforded to *Achimenes* and *Tydas*, when towards mid-summer the plant should be turned out of its pot, shaking all the old soil away and sorting out the scaly tubers and repotting into 5½-inch pots, or put two or three of the largest tubers into 6½-inch or 7-inch pots, using similar soil to that given to *Gloxinias* in general, and grow on as one does *Achimenes*, giving a little fire-heat, with shade during bright weather. Give plenty of water when growth is active. Propagation is done by division of the tubers when repotting, or the tops may be taken off and rooted in the same way as one would the *Achimenes*."

SAXIFRAGA PELTATA.

Mr. Kingsmill sends from The Holt, Harrow Weald, a leaf of this *Saxifraga*. It is 23 inches across, and the stem is 4½ inches in length. Mr. Kingsmill writes: "A large patch of this fine species has been strikingly handsome all the summer up till now. Close by it is a fine plant of *Gunnera manicata*, measuring 17 feet across. A careful measurement of the apparently largest leaf gave 63 inches across, with a stem of 70 inches from base of leaf to the plant itself. Both these plants are growing near the edge of a pond and in rather a shady situation."

DESMODIUM PENDULIFLORUM (SYN. LESPEDEZA BICOLOR).

A correspondent sends flowers of this interesting shrub, with the following note: "A graceful wall shrub, flowering freely at the end of September and through October, when most climbers are past. The shrub should be cut down to the ground in the winter, and in exposed situations protected with Bracken."

CALYSTEGIA PUBESCENS FLORE-PLENO.

Mr. Field sends flowers of this beautiful plant, with the following note: "When visiting the gardens at Bitterly Court, Ludlow, a few days ago I was pleased to find this pretty double Bindweed there in all its glory. Planted against a low fence in a deep rich soil it was growing most luxuriantly. The flowers were quite 2 inches in diameter and of a rosy pink colour, and, unlike those of most of the members of this family, it is not difficult to keep within bounds. When planted in good soil it will often make shoots 8 feet or 9 feet long in a season, and continues to flower until quite late in the autumn. This plant is at home in the rock garden, and for covering low fences, roots of trees, and low bushes in the shrubby borders it has few equals."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 18.—Royal Horticultural Society, Meeting of Committees, 12 noon.

October 25.—Croydon Chrysanthemum Society's Show (two days).

October 27.—Exmouth Chrysanthemum Show.

November 1.—Bournemouth Chrysanthemum Show (two days); Brighton Chrysanthemum Show (two days); Royal Horticultural Society.

November 2.—National Chrysanthemum Society's Show at Crystal Palace (three days); Southampton Royal Horticultural Society's Show (two days); Highgate Chrysanthemum Show (three days); Lowestoft Chrysanthemum Show (two days); Portsmouth Chrysanthemum Show (three days).

November 3.—Weybridge Chrysanthemum Show; Colchester Chrysanthemum Show; Forest Gate Chrysanthemum Show (three days).

November 4.—Windsor and Eton Chrysanthemum Show; Battersea, Clapham, and Wandsworth Chrysanthemum Show (two days); Hinckley Chrysanthemum Show (two days).

November 5.—Batley and District Chrysanthemum Show; Loughborough Chrysanthemum Show; Penarth Chrysanthemum Show; North Lonsdale Chrysanthemum Show.

November 8.—Ipswich and East of England Horticultural Society's Show at Ipswich (two days); Dulwich Chrysanthemum Show (two days); Sevenoaks Chrysanthemum Show (two days).

November 9.—Buxton Chrysanthemum Show.

Royal Horticultural Society.—The next show and meeting will be held in the Royal Horticultural Hall on Tuesday next, when new Fellows will be elected, new and rare plants and flowers, fruits, and vegetables will be exhibited, and a lecture, illustrated by lantern slides, will be given by the Rev. Professor George Henslow, V.M.H., on "Geographical Botany as a Result of the Adaptability of Plants." At a meeting of the Council, held on the 4th inst., on the question of the terms to be allowed to special horticultural societies, it was decided to grant all such societies, when holding a show in conjunction with one of the Royal Horticultural Society's fortnightly meetings, the following: (1) Four transferable admission tickets to each £1 ls. subscriber to the special society; two transferable ditto to each 10s. 6d. subscriber; and one transferable ditto to each 5s. subscriber. (2) Ten pounds in money towards the prizes. (3) The Royal Horticultural Society will make no award to any exhibit which follows closely on any class under the special society's schedule; such exhibits must be entered with the special society. (4) The Royal Horticultural Society will provide and fix all staging, bottles, plates, &c. (5) The arrangement of the exhibits must be left entirely to the Royal Horticultural Society.—W. WILKS, *Secretary*.

Hemerocallis citrina species.—I received this fine hardy Chinese plant at the beginning of last year from Herr Sprenger of Naples, and during last summer it bloomed nicely, producing one spike bearing about sixteen flowers. During the summer now coming to a close, however, having now got fully established in my garden, it has bloomed very finely indeed, sending up two many-branched flower-spikes, bearing from thirty to forty blooms on each of them. The flowers are of a pale lemon yellow, and of a large size, with dark brown shadings on their undersurface. They are somewhat thin in texture, and extremely brittle, so that the plant should be put in as sheltered a position as possible, as if exposed to any high wind the long petals are apt to be torn or broken in two.—W. E. GUMBLETON.

Rhabdothamnus Solandri.—I have a very interesting and curious New Zealand plant now coming into flower for the first time. It is a shrubby *Gesnerad* *Rhabdothamnus Solandri*, with light orange tubular flowers, in form something like those of a *Tydaea*, a) with brown longitudinal bands. I got my plant from Lemoine of Nancy.—W. E. GUMBLETON.

A prolific Potato.—At Woodhouse, Eaves, Leicestershire, a farmer named Reynolds has just raised 136lb. of Johnson Diamond Potatoes, the produce of 1lb. of seed Potatoes cut into single eyes and planted. They were dug and weighed in the presence of several witnesses.—E. S. O.

Anemone japonica crispa.—This variety of Anemone is quite a novelty, and as such is interesting. It grows 1 foot high, has thick Parsley or small Kale-like leaves, the edges of which are quite bronzed, giving it a pleasing appearance. The flowers are rose-coloured.—E. M.

Erigeron salsuginosus.—There seems to be a difference of opinion as to which is the correct form of this Erigeron. The plant most commonly known as salsuginosus grows 2 feet high, and is in full flower now. In colour it is palest pink; it is much branched and very free, a valuable border plant for September and October. The variety Mr. Perry names salsuginosus is quite a different plant; it grows but 6 inches high, flowers in June, has a deep pink and a far larger blossom, and is much more sparse of flower. The "Kew Hand List" says both forms are from North-Western America, and the tall form is a variety—Howellii. A little information would be appreciated.—E. M.

Desmodium penduliflorum.—During September flowering shrubs are not plentiful, and it is surprising that one does not see this beautiful Japanese species more frequently used, for at this season it certainly forms one of the most noteworthy subjects in the shrubbery. The flowers are Pea-shaped, rosy purple in colour, are produced very freely along quite 3 feet of the stems from the tip, and remain for a considerable time in good condition. In a strong soil here the slender stems annually reach a height of fully 7 feet, and need supporting, but I have seen this shrub used with good results when planted on the grass and tied over a framework. The stems die down to the ground with us in winter and need close pruning, though there is little doubt that this excellent shrub is perfectly hardy in all but the very coldest parts of these islands. It is also known as *Hespedeza bicolor*.—A. E. THATCHER, *Elstree*.

Aster Finchley White.—Among the Michaelmas Daisies there are numerous white forms, especially of the *Novi-Belgii* and *lævis* types, but none of them can compare in excellence with this new variety, which originated in the Finchley Nurseries of Messrs. Cutbush and Son last year. The flowers are of the purest white and fully 2 inches across, and, being produced with remarkable freedom, a fine show of bloom is obtained. The growth is compact and reaches a height of between 4 feet and 5 feet, and the roots do not spread so freely as with the older sorts. I am sure this variety will be much appreciated where the best large-flowered Asters are desired.—A. E. THATCHER.

Fruit at the Dairy Show.—We noticed a fine stand of fruit put up by Messrs. Hugh Low and Co., Bush Hill Park, at the Dairy Show held in the Agricultural Hall, which consisted mostly of Apples, of which Blenheim Orange, Worcester Pearmain, Cox's Orange Pippin, and Warner's King were excellent. Lane's Prince Albert and Bismarck, although well coloured, were smaller. The exhibit, which included a few trees of Apples, Pears, and Vines fruiting in pots, was evidently got up to attract the market growers who throng this exhibition in greater numbers probably than any similar show of its kind. Other nurserymen showing were Messrs. W. and J. Brown of Stamford, who put up a miscellaneous group, which included their new Cactus-flowered Geranium.

Public bowling greens in Edinburgh.—Much notice is taken by visitors to Edinburgh of the various public bowling greens provided by the corporation in different parts of the city and of the large number of players who frequent them. Practically all parts of the city are within easy reach of one or more of these bowling greens, which supply a valuable opportunity of recreation in the open air during the summer. From time to time additions have been made to

their number, and these additions have caused a considerable amount of work to Mr. J. W. M'Hattie, the able city gardener, in whose department the management of the bowling greens is vested. This year the success of the greens has been greater than ever, and during the season which has just been concluded 198,037 players took part in the games, an increase of 36,497. The revenue has also been considerably more, amounting this season to £325 3s. 1d., or £152 18s. 1d. above last year. The continued success of these greens is properly a cause of much gratification to those members of the corporation who have consistently advocated their formation.

Orchids in the market.—During the past few weeks Orchid flowers have been very plentiful. One salesman told us that he was receiving large supplies of *Odontoglossum grande* from one grower, but the trade for them was very poor. The flowers seen were very fine. About fifty dozen per week have been sent, and if trade warranted it much larger supplies could be sent from the same grower. Displayed in some of the florists' windows with *Asparagus* and other foliage they look very pretty, but the colour is not quite what is wanted. *Cattleya labiata* sells better, but even with these there is a limit to the demand, and just now is perhaps the worst time of the year for selling choice things. It is surprising how beautiful these work up in almost all floral arrangements. In funeral emblems they are now used extensively, and probably the largest portion at present are for this work; there would be little trade for them if it were not for this. *Cypripedium insigne* is another which is now seen in the market, also *Phalaenopsis schilleriana*. Considering the long time they last, Orchid blooms ought to make better prices. It is the *Cattleyas* of a mauve shade and *Odontoglossum crispum* which find most favour with florists.

Amalgamation of Hawick horticultural societies.—For some time the border town of Hawick has been the sphere of operations of two horticultural organisations, the Hawick Horticultural Society and the Hawick Working Men's Allotment and Cottage Garden Society. Although, to some extent, these worked on different lines, it has been felt that union would be very advantageous, and would tend to strengthen the movement to advance horticulture in the town and district. Negotiations between the two were entered into, and at a meeting held in the Burgh Court Room, Hawick, on the evening of the 28th ult. the proposals for amalgamation were approved of, and a new society was formed under the title of the Hawick Horticultural Society, the shows to be open to all districts. A committee and office-bearers were also appointed, the committee consisting of five gardeners and five amateurs, the office-bearers being: President, Mr. John Turnbull, Beaconsfield Terrace; vice-president, Mr. John Forbes, Buccleuch Nurseries; secretary, Mr. William Oliver; treasurer, Mr. George Davidson. There is every prospect that the society will be well supported in the locality.

Transmission of variegation by grafting.—M. Lindemuth recently wrote to the Royal Horticultural Society of Prussia concerning his experiments in grafting, experiments which he has conducted for several years. M. Lindemuth in these experiments made use especially of *Abutilon Thompsoni*, the variegation of which has been communicated in many cases to other Malvaceæ upon which it has been grafted. An attempt with *Sida mollis* has given doubtful but, nevertheless, very interesting results. The fusion of the graft with the stock was not complete; the graft showed a tendency to free itself and developed many adventitious roots, which would, indeed, have freed it had they been allowed to grow. The variegation was conveyed to the stock in a curious manner. The first shoot below the graft became variegated; the second, a little lower down, was likewise variegated with yellow; but the third shoot, still lower down, remained green. M. Lindemuth has communicated to the society some general observations on the transmission of variegation by grafting. He has known five different cases. In the first the variegation

was not transmitted—this is generally the case; in the second all the subjects became variegated; in the third some became variegated, others remained green; in the fourth the variegation was communicated in a latent state, and did not appear before the end of several months; and in the fifth some species contracted the variegation to such a pronounced degree that they really became diseased; the leaves fell in the yellow state, and the plant soon died.—*La Revue Horticole*.

Polygonum baldschuanicum.—The reference to this plant by Dr. Mules on page 202 of THE GARDEN of the 24th ult., and his remark that some of his friends tell him they cannot grow it, and decay it accordingly, leads one to say that it seems to require a considerable amount of moisture to enable it to grow and flower freely. I have observed it in a considerable number of gardens, as well as in my own, and I am satisfied that it frequently receives too dry treatment. With me in a very dry place it makes little growth and has flowered poorly, while in a garden in this vicinity it rambles over a tree, blooms freely, and is exceedingly beautiful; there it is in a moist and peaty soil. I shall remove my plant in spring, and I have little fear of succeeding with it under moister conditions than it at present has. I hope, however, that others will give the result of their experience.—S. ARNOTT.

Campanula pulloides.—A small plant in a pot, such as that figured on page 203, excellent as is the photograph, hardly does justice to this pretty little Campanula, which deserves all the commendation given it by Mr. Wood. It was raised by Mr. T. H. Archer-Hind, who very kindly sent it to me some year or two ago, and, although it seems to be of the same parentage as that of the forms of the hybrid C. G. F. Wilson, it is distinct from these, and quite equal to the best of them. It will thrive in the soil and with the treatment Mr. Wood indicates in his interesting note in THE GARDEN of the 24th ult. On a rockery it will soon form a good plant, and when in bloom is charming.—S. ARNOTT, *Carsethorn, by Dumfries, N.B.*

Pardanthus chinensis.—This plant, which was introduced about eighty years ago, is very rarely met with in gardens, and the last fifty-two volumes of THE GARDEN contain no mention of it. Last month I saw it near Chepstow, and found it very strong in Canon Ellacombe's wonderful garden at Bitton. It is now in flower with me, and is distinctly pretty. It grows to a height of 18 inches or 2 feet, and its flowers, which are orange, spotted with crimson, from which colouring it takes its name, are about 2 inches across, several being borne on a branching stem. They are, unfortunately, fugitive, only lasting in beauty one day, but are produced in quick succession. It belongs to the order of Iridiæ, and its foliage and habit resemble an Iris. Since it succeeds in Gloucestershire, it is probably fairly hardy. With me it is growing in a sunny border in light soil.—S. W. FITZHERBERT.

Stigmaphyllon ciliatum.—This, known sometimes as the Golden Vine, is a free-growing climber from Brazil, which needs, as might be expected from its native habitat, the temperature of a stove or at least of an intermediate house. It was introduced over a century ago, but is by no means common in gardens; still it seems to be the only member of a fairly extensive genus that is in general cultivation. The leaves are oppositely arranged, somewhat heart-shaped, smooth, except at the edges, where they are fringed with numerous hairs, colour pale green, suffused with a glaucous hue. The flowers, which are borne five or six in a cluster, are about 2 inches across and of a clear yellow colour. Singularly enough they much suggest in shape the flowers of some of the *Occhidiums*. When in good condition this *Stigmaphyllon* will soon cover a considerable space, and flower throughout the greater part of the summer and early autumn. In any selection of warm house climbers it is well worth a place, as apart from any other feature it is perfectly distinct from all other stove or greenhouse plants of this class. Its cultivation is not exacting, still it is seen to greater advantage when planted in a prepared border than if treated as a pot plant. During the spring and summer



BENTHAMIA FRAGIFERA AT TRELISSICK, TRURO.

months a liberal use of the syringe is necessary, as the foliage is rather liable to be attacked by red spider, which soon causes the leaves to turn yellow and drop, but which can be readily kept down by syringing. Cuttings of this plant root without difficulty.—T.

Lysimachia Fortunei.—I was glad to see the interesting mention by Dr. P. H. Mules of this new *Lysimachia*, which I obtained last autumn. It has flowered well this season, and is still in bloom. It is in some respects like *L. clethroides*, but it has also a character of its own, and is more distinct than most of the members of the genus. It is not a showy plant by any means, but its spikes of small white flowers, with dark brown anthers, are pleasing. At a distance they make some think that the plant is a *Veronica*, but a glance at the character of the flowers is sufficient to correct this impression. The leaves resemble those of some of the *Willows*. It is a plant which should grow between 2 feet and 3 feet high in ordinary soil. For its possession I am indebted to Mr. Max Leichtlin of Baden-Baden, who has enriched so many of our gardens by his introductions.—S. ARNOTT, *Carsethorn, by Dumfries, N.B.*

Astilbe Davidi.—Fuller experience of this splendid *Veitchian* introduction confirms the opinions expressed when this *Astilbe* was first exhibited in London, and there can be no doubt that it is the finest thing in hardy plants that China has given us of late. It appears to thrive in any well-tilled soil, appreciating to the full a root run of leaf-soil and well-decayed manure; in fact, one cannot treat the plant too well to get excellent results. The leafage is robust, the plumes immense, and their colouring is of a peculiar shade, rosy purple marked with blue and silvery rose. The panicles are not so dense as in most *Astilbes*. It is not too much to say *Astilbe Davidi* will be found in every garden worthy of the name ten years hence, and it is probable that a new race of coloured *Astilbes* of still greater value may result from crossing this plant with *chinensis* and others.—G. B. M.

Early Pompon Chrysanthemum J. B. Duvoir.—Since it was introduced in 1891 by M. Simon Delaux, who gave us so many excellent early *Chrysanthemums*, little has been heard of this variety. I well remember making a note of its promising character on the occasion of its first

flowering in this country, but in the interval the only place in which the plant was found was in the representative collection of Mr. William Sydenham of Tanworth, who has had it in his trial for three years now. Of the *Pompon* type of this early edition of the *Autumn Queen* the variety under notice is one of the very best. The flowers are just a trifle larger than most other sorts, yet they are excellent representatives of the type. The colour may be described as pale blush-pink, and each flower is borne on a long erect foot-stalk. During September, from the earliest days, the plant is a picture, never failing to please those who see the display. Its height is 18 inches.—D. B. C.

Early-flowering Chrysanthemum Improved Masse.—This is a seedling raised by Mr. H. J. Jones at Rycroft Nursery, a plant or two of which was sent to me for trial. The seedling plant was distinctly promising, but the specimens now in flower in my own collection are all that the descriptive name of the variety says of it. The flowers are larger and better in every way than those of the type, being of excellent form, and of more pleasing colour than those of *Mme. Marie Masse*. This new sort may be regarded as a distinct acquisition, the plant being branching and sturdy, and the flowers are each borne on a long erect foot-stalk. Height of plant less than 3 feet.—D. B. CRANE.

The Pomegranate.—Here in South Hants, within ten miles of the Solent, the *Pomegranate* is quite hardy at the foot of a south wall without any further protection. As a rule it gives a crop of its brilliantly coloured blossoms in August, but I never saw it fruit here. In Mr. J. Moss's garden at Wintershill House, near Bishop's Waltham, the finest plant I ever saw of it used to grow at the east end of a greenhouse. It was smothered with blossoms almost every year. At Aldenham in Herts, it grows on the western side of a low terrace wall, but is not yet large enough to flower.—E. M.

Runner Bean Lye's Favourite.—I recently saw this *Bean* growing at Aldenham, and believe it to be the variety raised by Mr. Lye at Sydmonton. It is grown both by Mr. Pope and Mr. Beckett, and both speak highly of it. The latter says it is the finest *Bean* in existence. I measured some hanging on the plants at Aldenham,

and they were 1 inch longer than a foot-ruler. I am glad to see "A. D." speak so highly of this *Bean*.—E. M.

Apple Tom Putt.—This Devonshire *Apple* has done remarkably well this year; it has borne freely, and the fruits have coloured extremely well. It is difficult to name a more showy *Apple*. The skin is a brilliant crimson, suffused with clear yellow. It is not only good looking, but really a good cooking variety, in use in October and November. In this neighbourhood an *Apple* named *Profit* is somewhat largely grown; it resembles *Tom Putt* in every way, except that it lacks colour. Does anyone know the origin and history of *Profit*?—E. M., *South Hants.*

Early flowering Chrysanthemum Snowflake.—This promises to be one of the best white-flowered varieties for an early crop. The growth is compact, sturdy, and not more than 3 feet high; it flowers abundantly. The flowers are about 5 inches in diameter, with somewhat narrow, semi-drooping petals, with pointed tips, and of the purest white. It is one of Mr. Godfrey's seedlings.—E. M.

Exhibition of Colonial fruits.—The Colonial-grown fruit show organised by the Royal Horticultural Society, which is announced to take place on December 13 and 14 next, will include such fruits as Colonial-grown dessert Apples and cooking Apples, Pears, Pineapples, Bananas, Mangoes, Grapes, Yams, Sweet Potatoes, and other fruit. In connexion with this there will

also be a show of preserved and bottled fruits and jams open to the Colonies, the home country, and to foreign countries as well. We understand that a second show of Colonial-grown fruit is in contemplation to take place about the end of March or the beginning of April of next year, in order to give every opportunity for the exhibition of such fruits as may not be in season in December.

Buddleia variabilis veitchiana.—It may be interesting to some to know that this fine *Buddleia* withstood last winter's frost in the Royal Botanic Gardens, Edinburgh, on the wall of the terrace in front of the range of plant houses. It has grown vigorously, and was still in flower as late as the middle of September. It is much better than the typical *B. variabilis*, while it appears also to be hardier than that form. Its purple racemes are very ornamental, and it deserves the notice of lovers of shrubs who are desirous of adding the best of the newer plants. In some places it may need a little protection, though this should be avoided if possible.—S. ARNOTT.

TREES AND SHRUBS.

BENTHAMIA FRAGIFERA.

SOME years ago a coloured plate was published in *THE GARDEN* of the fruit of this beautiful tree, and by request I sent some of the berries to Kew, one half of which were preserved in the museum there and the other half in the museum at Washington, U.S.A. I was afterwards informed that not one of the Kew authorities had ever seen the fruit before. This *Benthamia* was introduced from Nepal about eighty years ago, and the original plant grew for many years at Helligan, in Cornwall. The tree died, but was allowed to stand as an object of curiosity. The shrub, or rather tree, for it grows here to 25 feet high and as many through, is very beautiful in the month of May, with its cream-coloured flowers about the size of a *Petunia*, but still more beautiful in December, when the branches are laden with the brilliantly coloured fruits, about the size of

those of an ordinary Strawberry. Birds, however, are very fond of it, and will soon destroy them unless means are taken to scare them away. Unfortunately, the tree is not quite hardy, and can only be seen in perfection in the south-west of England. It is not at all particular as to soil, and grows freely from seed. The photograph is by Mr. Mewton of Truro.

Trévissick, Truro. WILLIAM SANGWIN.

CISTUS LADANIFERUS.

I ENCLOSE a photograph of what I consider a magnificent plant of the above; indeed, I have never seen one to equal it. I have known this plant for some twenty-five years; it is growing in the gardens of J. E. Cokayne, Esq., Exeter House, Roehampton. It measures 51 feet in circumference, and is 8 feet 6 inches high. On a fine day when at its best it is truly a beautiful sight.

VICARY GIBBS.

Altenham House, Elstree.

BULBS FOR THE GREENHOUSE.

TO have a display of flowers throughout the year in the greenhouse or conservatory it is necessary to rely greatly on bulbs for a certain period; indeed, during the first three months of the year bulbous plants furnish the major portion of the floral display. Nearly all of them so used are perfectly hardy; that is to say, the protection of a greenhouse is not absolutely necessary to their well-doing, but by the protection thus afforded they anticipate by a considerable period their natural season of flowering, and are, consequently, particularly welcome. The hardy kinds are largely grown in Holland and in some parts of this country; in fact, their cultivation here is greatly on the increase. When dormant they are lifted, dried, assorted, and are then ready for sale. Though numbers are disposed of before that time, the bulb season as a rule may be said to commence in September, and, though they may be obtained for a long time after that, the best month for potting the greater portion is October, as after that time they deteriorate if kept in dry store-rooms, warehouses, &c. As the bulbs when fully grown contain the embryo flowers, it is evident that the principal consideration is to place them under such conditions that they will grow and develop their blossoms without check, but, as the same treatment is not applicable to all, the requirements of each class will be separately dealt with. Of hardy bulbs available for greenhouse decoration the principal are Hyacinth, Tulip, Narcissus, Crocus, *Allium neapolitanum*, *Chionodoxa*, Scilla, Snowdrop, Muscari, and Lilius.

HYACINTHS may be potted singly into pots 4½ inches or 5 inches in diameter, while for decorative purposes three bulbs are sometimes put in a large pot and arranged triangularly. A mixture of loam, leaf-mould, well-decayed cow manure, and sand will suit Hyacinths well, and in potting it should not be pressed down too firmly. The bulb should be planted at such a depth that the top is just on a level with the surface of the soil. After potting place them on a bed of ashes out of doors, give a good watering through a rose, and when drained they may be covered to a depth of 4 inches with cocoa-nut refuse. This is not absolutely necessary, for I have seen good results by simply standing the pots outside till the bulbs were well rooted. In any case this will take from a month to six weeks, when they should be lifted and the pots placed in a cold frame or taken direct to the greenhouse, where they must be given a light position. As the pots get full of roots an increased amount of water will be needed, and liquid manure may be given occasionally. If required early, forcing will, of course, be necessary, but where there are no facilities for this they may be allowed to develop in the greenhouse, and in a temperature

of 50° to 60°, or even less, they give but little trouble, and with ordinary attention can be depended upon to do well. A selection of Hyacinths for pot culture would include:—Single: *Alba maxima*, white; *Avalanche*, white; *Ball of Gold*, yellow; *Charles Dickens*, light blue; *City of Haarlem*, yellow; *Czar Peter*, lavender-mauve; *Fabiola*, pink; *Garibaldi*, bright crimson; *General Havelock*, deep blackish purple; *gigantea*, rose; *General Pelissier*, crimson; *Grand Vedette*, white; *Grandeur à Merveille*, blush-white; *Grand Lilas*, porcelain blue; *King of the Blues*, dark blue; *King of the Blacks*, darkest of all; *Koh-i-noor*, salmon-pink; *Leonidas*, bright blue; *L'Innocence*, white; *Macaulay*, rose, striped carmine; *Norma*, waxy pink; *Queen of Hyacinths*, rosy scarlet; *Ruby Queen*, rich ruby-red; and *William III.*, deep purple. Double: *Blocksberg*, porcelain blue; *Bouquet Royal*, light rose; *Empress of India*, carmine; *Garrick*, lilac-blue; *La tour d'Auvergne*, pure white; *Lord Beaconsfield*, deep red; *La Grandesse*, white; *Laurens Koster*, dark blue; *L'Adorable*, pure white; *Noble par Merite*, pink; *Princess Louise*, carmine-red; and *Prince Albert*, purplish black.

HYACINTHS IN GLASSES.—Grown in this way Hyacinths are admired by many, and if two or three simple facts are borne in mind failures will be but few. In the first place, single-flowered varieties are far more likely to give satisfaction than the double ones. Well-shaped bulbs should be chosen for this purpose. Then fill the glass with water so as almost to touch the base of the bulb, putting at the same time a small piece or two of charcoal in the glass, as this tends to keep the water pure. After putting the bulbs in position the glasses should be kept in a cool, dry, dark place till the roots nearly touch the bottom of the glass; then they should be brought gradually into the light, afterwards giving them plenty of light and air, but keep from direct draughts. The water will need replenishing occasionally, but will not require changing as long as it keeps sweet. Occasionally a little decay appears, and this should be removed as soon as detected. As the flower-spike lengthens it should be supported by a wire, otherwise it may get top-heavy and fall over.

ROMAN HYACINTHS.—Though the bulbs of Roman Hyacinths are sent to this country in great numbers, the earliest usually reaching here about the end of July, a good deal of misconception prevails as to their requirements, for, flowering early as they do, hard forcing is generally considered necessary, whereas even the amateur with but a single greenhouse can readily have them in flower long before Christmas. In potting the Roman Hyacinth

three fair-sized bulbs may be put in a pot 5 inches in diameter, and so treated they form effective clumps, for several spikes are pushed up from one bulb, a succession being maintained for some little time. Larger pots, with a corresponding increase in the number of bulbs, may be used if preferred. To maintain a display of flowers a fortnightly potting may be made from the end of August to a corresponding period in October. After potting they are usually placed out of doors and treated as other Hyacinths are.

TULIPS.—Generally speaking, Tulips grown in pots require much the same treatment as Hyacinths, except that from three to five bulbs may be put in a pot 5 inches in diameter. Like the Hyacinths, too, they will develop in an ordinary greenhouse from which frost is excluded, and it is most interesting to watch their gradual development at a time when nearly all outdoor plants are dormant. Of the different varieties of Tulips suitable for pot culture, the old *Duc Van Thol*, whose flowers are red, edged with yellow, has been long popular for the purpose; it is one of the earliest flowering of all Tulips. For some years this stood out by itself, but now the *Duc Van Thol* race embraces many colours, there being the crimson, orange, scarlet, rose, and yellow, all of which are equally desirable with the typical form. In addition to these, the following are all good for pot culture: *Single: Belle Alliance*, deep scarlet; *Bride of Haarlem*, white, striped and feathered crimson; *Brutus*, orange-crimson, narrow golden margin; *Cerise Grisdelin*, cerise, yellow margin; *Chrysolora*, clear yellow; *Cottage Maid*, rose-pink, shaded white; *Crimson King*, scarlet-crimson; *Joost Van Vondel*, rosy crimson; *King of Yellows*, golden yellow; *Koh-i-noor*, rich scarlet; *L'immaculée*, pure white; *Proserpine*, rich dark rose; *Rosa Mundi*, purplish rose; *Rose Grisdelin*, rose, flushed white; *Royal Standard*, white, feathered crimson; *Thomas Moore*, orange, shaded scarlet; *Vermilion Brilliant*, bright vermilion; *Van der Neer*, purplish violet; and *White Swan*, pure white. Double: *Scarcely* so well adapted for pot culture as the single kinds; still, they are admired by some. *Couronne des Roses*, deep rose; *Duc Van Thol*, red and yellow; *Gloria Solis*, reddish brown; *Imperator Rubrorum*, bright crimson; *La Precoce*, pure white; *Le Matador*, orange-scarlet; *Murillo*, pale rose; *Prince of Wales*, orange-scarlet, edged yellow; *Raphael*, rose; *Rex Rubrorum*, bright red; *Tournesol*, red and yellow; and *Tournesol Yellow*, bright golden yellow.

NARCISSUS.—The members of this genus, regarded as pot plants, may be divided into two classes; firstly, the *Polyanthus Narcissi*, some of which are



CISTUS LADANIFERUS AT ROEHAMPTON. (From a photograph sent by the Hon. Vicary Gibbs.)

very amenable to forcing. They bear a quantity of flowers on a single stem, and are very valuable for decorative purposes. The second class consists of the innumerable varieties which may be flowered under glass, but will not bear hard forcing. The different forms of *Polyanthus Narcissi* may be treated as recommended for Hyacinths, except that they should be buried somewhat deeper in the soil. The best varieties are Early Double Roman, white, with orange centre; Early Paper White, pure white; Early Snowflake, pure white, larger than the preceding. These three, if gently forced, may be had in bloom by Christmas, while the following will not be far behind: Bathurst, clear light yellow, with orange cup; Distinction, pure white; with deep orange cup; General Gordon, orange-yellow; Grand Monarque, pure white, citron cup; and White Pearl, pure white. To this section belongs the Chinese Sacred Narcissus, known as the Fairy Lily, Joss Flower, and Flower of the Gods. This is always imported direct from China or Japan, and usually arrives about the end of the year. The Joss Flower will readily develop and flower well if the bulbs are put in small bowls of water with some pebbles in the bottom to hold the bulb in position. If kept indoors it should be placed in a light window, otherwise the leaves and flower-stems become weak, and a good deal of their beauty is lost.

H. P.

(To be continued.)

A GENERAL CALENDAR.

PLANTING FRUIT TREES.

AFTER the rains we have experienced of late the ground should now be in good condition for planting. The best time is from the latter part of October to the middle of November, according to the season. It does not matter if all the leaves are not off; in fact, I prefer planting while the leaves are still on the trees. They should be planted as soon as they arrive from the nursery, or, if they have to wait for a time, the roots should be covered over with damp matting or leaves, for on no account should the roots get dry. Never be tempted to buy fruit trees at an auction room, where the roots have been exposed perhaps for days together. It is very rare indeed for fruit trees which have been subject to this treatment completely to recover from it.

Gooseberries.—In every garden there should always be a good quantity of Gooseberries. The large early ones come in for gathering when green, some are valuable for dessert when ripe, while others are useful for preserving. In many gardens it is difficult to find room for everything required, as the demand far exceeds the convenience for production, but with a little forethought it is astonishing what an amount may be grown in a limited space. Cordons planted against low fences or along the edges of walks take up little room; they will give a quantity of fruit if planted against north walls and similar positions where the fruits can be protected from autumnal rains. Before planting the ground should be deeply dug and well manured, for it is astonishing the amount of nourishment a heavy crop of Gooseberries requires.

Planting Cauliflowers.—It is time that the first batch of Early London, Walcheren, or Early Erfurt intended for use at the end of May were transplanted. When the plants have been pricked out into beds they may be lifted with a fair amount of soil adhering, and should feel the check of removal but little. Plant firmly and sufficiently deep to prevent the plants swaying to and fro through autumn winds, give a gentle watering to settle the soil round the roots, and keep the lights off the frames for the present. Should, however, frost or rough weather set in, the lights may be placed on in such a position as to admit a little air.

Pricking out Cabbages.—After the required area has been planted with plants from the seed-beds these that are left may well be pricked out closely on well-prepared firm ground in sheltered nooks

to stand the winter, as, should the weather prove mild, these are often of more value in spring than the ones wintered in frames, being hardier and doing far better when transplanted.

Pyrethrums.—Where an early display and an increased stock of these is required autumn division is preferable, especially if the spring should prove hot and dry. The clumps should not be split up any more than is absolutely necessary, so as to avoid mutilation as much as possible. A deep rich soil suits the Pyrethrums best. The plants are very sensitive to a long spell of dry weather, and I find a good surface mulching indispensable to successful culture.

Schizostylis coccinea.—This charming autumn-flowering plant is rarely seen now. Its neat spikes of bright crimson or deep scarlet-bued blossoms give a note of colour in the outdoor borders at a time when this is of unusual value. It grows freely in any good garden soil, and should be planted in the spring or early summer, increase being obtained by means of division. If planted rather late in good-sized pots, grown on in a cool pit during summer, and brought into the greenhouse in the early autumn when just showing bloom, it expands beautifully and contrasts admirably with *Chrysanthemums*. Plants lifted now from the borders and placed firmly in pots and well watered will soon recover themselves and give an abundance of bloom through the autumn and early winter months.

Pampas Grass.—When it is desired to gather the Pampas plumes for decoration they should be cut when quite dry just as they are about to expand, and then gently shaken out of their protecting sheaths before a fire. If this is done slowly and carefully they lose none of their beauty and last much longer than when left to open in the usual way.

Norwich.

T. B. FIELD.

THE HAMMOCK UNDER THE OAKS.

SOME AUTUMN FLOWERS.

(Continued from page 243.)

NEARLY all the different kinds of Sunflowers are now out of bloom, but *Rudbeckia hirta* is still making patches of gay colour in the wild garden with its orange-coloured blossoms which have black centres. It is by way of becoming a nuisance, as it seeds very freely in good soil, so that it is necessary to discipline it severely to keep it within bounds. However, it is not hard to eradicate, and will not prove such a pest as a marsh Golden Rod in one of the Iris beds. The roots of this Golden Rod came in a waggon load of black, peaty soil from the marsh, which was used some years ago in the formation of this Iris and Peony bed. Last spring the entire bed had to be gone over very carefully to destroy the Golden Rod. It increased rapidly by means of underground stolons, the roots spreading in all directions from a central stalk, which reminded me of nothing so much as of the long arms of an octopus. Their hold upon the ground was amazing, and they had worked their way far under the fleshy rhizomes of the Irises. These had in many cases to be pulled all to bits to rid them of the embrace of the Golden Rod.

Even more disastrous is the mischief done in the rock garden by an innocent-looking little creeper, which has spread during a summer's neglect to such an extent that much of the rock garden will have to be dug up and replanted. This treacherous plant is a wild ground Ivy (*Glechoma hederacea*) which belongs to the Mint family. It is a native of our damp woodlands, and has spread from one small rootlet brought some years ago from the

river cliffs in a basket of Ferns, Columbines, and other treasures for the rock garden. First it took possession of the winding path through the rockery, which it clothed in such a dainty green garment, bespangled in spring with such pretty blue labiate blossoms, that it was allowed to have its way. Then it gradually invaded long-established beds of Moss Pinks, hardy Alyssum, *Saponaria ocyroides*, and such things, running over the tops of low-growing plants, its runners rooting everywhere, until it would entirely cover a bed, overshadowing the invaded plants in such a way as to rob them of light and air. The only way to treat such an encroacher is to give no quarter. Not a single root must be left alive.

A great clump of tender *Hibiscus*, 6 feet in height, has been in flower for a fortnight from seed planted in the open in May. This is *Hibiscus africanus*, an annual, and a large group of it is quite an imposing ornament for a flower-bed or border of mixed shrubs, large annuals, and perennials. The five-parted leaves are as large and showy as those of the Castor Bean, and the big flowers, which are lemon yellow with centres of very dark maroon, are strikingly pretty. The great plants have hundreds of buds yet to open from the many-branched stems, but it is probable that they will soon be cut down by the frost. To obtain the best results from this *Hibiscus* the seed should be sown in February under glass, and the plants transferred to the open late in May.

Few individual plants have given us so much pleasure as the great Evening Primrose spoken of in my last letter, which the little girl and I used to watch under umbrellas in the rainy summer twilights. It reached the height of its beauty one night in July, when forty-eight of its large, lemon yellow blossoms expanded slowly under our eyes, from its main stem and many side shoots. This *Oenothera* is a biennial, and is now quite dead, but it is easily raised from seed, which should be sown every year in order to keep up a succession of young plants.

Another bit of beauty that has afforded us much pleasure is a part of the gently sloping bank which we pass on our way to the hammock, which is planted with *Tritomas* in several varieties, the ground under them carpeted with orange and scarlet *Nasturtiums*. The effect of the orange and red *Tritomas* rising out of the bed of *Nasturtiums*, with flowers of the same colouring, has been very fine for a long time. The *Tritomas* used are *T. Uvaria grandiflora*, *T. corallina*, *T. Tuckii*, *T. Macowanii*, *T. Rooperi*, *T. nobilis*, and *T. Pfitzeri*. By using so many sorts one can have these showy plants in bloom from June until hard frost destroys the blossoms.

DANSKE DANDRIDGE.

NOTES ON HARDY PLANTS.

PENTSTEMON NEWBURY GEM.

MR. ERNEST LADHAMS of the Shirley Nurseries, Southampton, first exhibited this Pentstemon in the south of England some six years since, and in a conversation with him he said he found it in a garden at Newbury in Berks, or Messrs. Backhouse's traveller from York did; I forget which. This is how it got the name of Newbury Gem. At that time I looked upon it as a new plant. I grew it and recommended it to my friends. Guess my surprise when four years ago, calling on Mr. Shingler at Melton Constable in Norfolk, I found this same plant largely used for bedding. Mr. Shingler told me then he had grown it for forty years. It is a

grand plant for any purpose. I saw it largely used this summer for covering the soil in a large bed planted with white Fuchsias, and very effective it was. Neither wet nor drought seems to affect its growth and flowering. It strikes very easily from cuttings, and is perfectly hardy. My original plant is still growing and giving flower-spikes, though they are not so fine as those produced by year old plants. E. MOLYNEUX.

ANEMONE JAPONICA ROSEA SUPERBA.

THIS variety was distributed some years ago by M. Lemoine of Nancy. I believe that one of the parents was A. Lady Ardilaun, the other being the old rubra. Curiously enough, a seedling of mine is identical with it. It was the first cross I made, and saving the seeds late in the summer I got but one plant from them. I did not think much of it, but a person to whom I sent a plant later expressed a high opinion of its decorative worth. Later on I obtained the plant, which had been distributed under the above name, and I have never been able to distinguish any difference between them. This Anemone has all the good qualities a garden flower should possess. It is very hardy, quickly increases, and is extremely floriferous. The soft shade of pink which the flowers have is very distinct, and much like what one sees in some of the single Chrysanthemums. J. CORNHILL.

TULIP LA CANDEUR.

UNDER this name there are three quite distinct Tulips in the trade, and all are white. When ordering the variety recommended on page 188 in your issue for the 17th ult., it will be necessary to state that the double one is required. It grows about 1 foot in height, and is only about a quarter the price of the other two. The Darwin La Candeur, also known as White Queen, is single, and often grows to a height of 2 feet. It has large, bold, globular flowers, with black anthers. The May-flowering variety La Candeur is also single; it grows about 15 inches in height. It is perhaps met with more frequently under the name of Parisian White. A. OSBORN.

HERACLEUM LEHMANNIANUM.

THE members of the family to which this stately plant belongs are not conspicuous for the attractive colouring of their flowers. The lack of this feature, however, is amply compensated for by the noble proportions attained by many of them. By reason of this they are not adapted for the border or flower garden, but are suitable for the wild garden or for growing in open woods or by the side of streams. Naturalised in this way they are very effective with their handsome foliage and stout, branching stems, varying in height from 6 feet to 12 feet. At the top is an immense umbel of usually white flowers, followed later on by the smaller lateral heads springing from lower down the stem. A numerous family, the Cow Parsnips are spread over the mountains of Central and Southern Europe and Asia, with a single representative in this country commonly known as Hogweed (*H. Sphondylium*). In the accompanying illustration *H. lehmannianum* is shown on a dry bank, where it makes an effective picture. It is a native of Turkestan, and has been in cultivation for about six years. Growing in its present position from 6 feet to 7 feet high, the flowers of this species are freely produced and are dull pink in colour. The most common one in cultivation is probably *H. villosum*, which often passes under the name of *H. giganteum*. It is a native of the Caucasus, and is truly a gigantic plant. Both plants seed freely, and when undisturbed soon form large colonies, seedlings coming up in profusion all round and some distance from the old plants. It is a pity that these remarkably handsome plants are not more freely naturalised, as they will grow in positions quite unsuitable to many things. A single specimen standing out by itself is full of beauty, both with regard to its leaves, flowers, and stem. W. IRVING.

THE FLOWER GARDEN.

HARDY FLOWERS FOR CUTTING.

GARDENERS often regard with aversion the cutting of flowers for the house. The taste for cut flowers in the house has grown much during the last generation, and is no less remarkable than the alteration in the ways of arranging them. Something seems lacking in a house now, at least, in a living room, if there are no flowers in it, and nowhere is this more noticeable than on the dinner or tea-table. A small portion of the vegetable garden should be formed into a reserve garden, and devoted to small plots of certain flowers which demand special culture, that is, plants which will not do well in the ordinary herbaceous border, as these can only be properly manured, say, once in a half dozen years, when the whole of the plants are taken up and replanted. By means of this reserve garden well-cultivated plots can be given to choice flowers, which will grow with a luxuriance impossible in the mixed borders and beds, the former often filled with the roots of hungry shrubs. Flowers



HERACLEUM LEHMANNIANUM ON A DRY BANK.

for cutting will appear in such plenty that there will be ample provision for all the needs of the house, even on the most lavish scale, as well as a surplus wherewith to gratify one's less fortunate friends and cheer the sick poor withal.

My object in this article is to give a list of plants which can be easily grown and are suitable for cutting with an eye to effect in the house. The term hardy perennial is used instead of herbaceous perennial, as the latter strictly does not include bulbs or plants which remain green all the winter. For the first

THREE MONTHS OF THE YEAR

we are dependent almost entirely upon bulbs—Snowdrops, Crocuses, and the old-fashioned Daffodils, the latter in many people's opinion still holding their own for indoor decoration, notwithstanding the enormous vogue of the more delicate forms of Narcissus. Crocuses are awkward things to arrange as a rule, but if a flat vessel after the style of a soup plate is covered with the crowns of Carrots a week or two before the Crocus season, and these are kept moist in a warm room, a very

pretty green mass is obtained, and Crocuses stuck in it look very nice, and it might easily be supposed they were growing. They can be renewed day by day with little trouble. Daffodils look best in a bowl with a piece of folded lead at the bottom to keep both leaves and stems in a more or less upright position, thus giving them the appearance of growing in the bowl. But even for the first three months of the year we are not absolutely dependent upon bulbs, for the Christmas Rose (*Helleborus niger* and its varieties) continues well into January, and even later sometimes, and if a frame is set over them very good flowers for cutting will be obtained. These are succeeded in February and March by the Lenten Roses, which are principally varieties of *Helleborus viridis* and *H. orientalis*, delighting in a rich stiff loam in a shady position, and doing best if left undisturbed for years.

APRIL

is the month of bulbs, Wallflowers, and the various forms of Primula, a largely increasing class, some of the larger members of which, such as *P. elatior gigantea* (Cowslips) and *P. japonica* (which latter in deep, moist, rich loam grows 2 feet high) make very good specimens for cutting. The Leopard's Bane are very handsome, the best being *Doronicum plantagineum excelsum* (syn. Harpur Crewe), which grows some 3 feet or 4 feet high, producing long yellow Daisy-like flowers with a good length of stalk for cutting. They last a long time in water if picked soon after they are open. If they are mixed with some of the gorgeous scarlet Anemones, with Solomon's Seal (*Polygonatum multiflorum*) for greenery, a very effective arrangement is produced. Another beautiful combination possible at this season of the year is Leopard's Bane and *Dielytra spectabilis* (said to be more correctly called *Dicentra spectabilis*), the beautiful foliage of the latter, and its drooping coral flowers like bellows or lyres (hence one of its names, the Lyre flower), harmonising most delightfully with the starry yellow Leopard's Bane.

MAY

is the month of the late bulbs, tall Tulips, *Narcissus poeticus*, &c., with many beautiful Anemones, Ranunculus, and Lilies of the Valley, all of which lend themselves to table decoration more or less effectively, though each needs the particular sort of receptacle and method of arrangement best suited to it. The old-fashioned, short-spurred Columbines, both double and single, are very useful, their sprays of pendulous blossoms being very graceful, and they are not likely to be entirely neglected for the long-spurred varieties, beautiful though the latter are, by the lovers of old-world flowers, for are they not the real "gentle Columbine?" *Dielytra spectabilis* lasts in full beauty all through this month if not in too hot a place, and is very useful for mixing with many things. Another old-fashioned flower, the London Pride (*Saxifraga umbrosa*) should not be forgotten. It will grow in any wet useless place, and its delicate panicles are useful for mixing with other flowers. In

JUNE,

the month of Roses in a normal season, though not in 1902 and 1903, as witness the summer shows of the Royal Horticultural Society at Holland House, the wealth of summer flowers begins, and for this and the two or three following months only a few of the best subjects for cutting can be given. Nothing is lovelier than a large bowl of Paeonies cut with long stalks so that they carry their own foliage. They need a large heavy vase or bowl, and a bold, free method of arrangement. Notwithstanding all the numerous and beautiful varieties now grown, the old crimson is still not to be despised. Of the Flea-banes the best is *Erigeron speciosus superbus*, a handsome border plant between 2 feet and 3 feet high, which is covered with large, lilac-purple, Aster-like flowers with orange centres. All these Daisy-like flowers are well adapted for decoration. Some of the loveliest flowers of the month are the long-spurred Columbines, which are hybrids obtained chiefly from crosses between *Aquilegia chrysantha* (Golden Columbine) and *A. cærulea*

(Rocky Mountain Columbine). They are almost as remarkable in shape as an Orchid. Many were astonished at one of the fortnightly shows of the Royal Horticultural Society last summer to see a group of about fifty named varieties. They are not so hardy as the old-fashioned Columbines, and need a somewhat light soil, or one which is made so by the addition of leaf-mould. The Pyrethrums, principally hybrids from *Pyrethrum roseum*, must not be omitted, as their long stems and long duration render them very valuable for cutting. Some of the more recent introductions, both single and double, provide a wealth of colour. Some of the finest are James Kelway, brilliant scarlet-crimson; *Vésuve*, blood red; and Mary Anderson, flesh colour, all single. Aphrodite, pure white; Florentine, blush white; Alfred Kelway, rich crimson; and Sam Bunburgh, white, one of the finest for cutting, all double. In a slug-infested garden it is difficult to keep Pyrethrums from destruction during the winter and early spring. The same remark applies to Delphiniums, which are at their best at the same time. Some think that the great rigid spikes are not adapted for cutting. Certainly some of the hybrids are ill-adapted for table decoration except on a very large scale, but some of the species, notably *D. hybridum* Belladonna, which only

hybrida grandiflora. The bright crimson centres of this variety make it very effective when mixed with Sunflowers, with *Gypsophila paniculata* for greenery. This last named has only come into vogue during the last few years and is now everywhere, and is quite indispensable for table decoration. It likes a calcareous soil, as its name implies, and therefore if the soil is not rich in chalk, some of this substance, or lime or mortar rubbish, should be mixed with the soil before planting. ALGER PETTS.
(To be continued.)

TULIP SIR THOMAS LIPTON.

THOSE who anticipate planting Tulips for spring blooming would do well to mark out this meritorious variety. It is a most brilliant satiny scarlet sort, and when planted in beds is more lasting than that popular variety Kaiser's Kroon, but not quite so large. It was the most striking variety we had, eliciting remarks from the most casual observer.
Talygarn, South Wales. B. B.

DIANTHUS PLUMARIUS.

OF all the members of this valuable genus the common or feathered wild Pink may be said to be one of, if not the most variable in the size and

many forms is *D. p. var. serotinus*, with deeply fringed flowers, having a large brownish red zone near the base of the petals, which vary in colour from white to light purple. Other forms are numerous, and from this species have been derived the well-known and popular single and double varieties which are so much valued for decorative purposes in the garden and form one of the most favourite classes of florist's flowers we have.

W. I.

ROUND ABOUT A GARDEN.

PLANT POLITICS.

WHAT fine imperial instincts some plants seem to have! Every owner of a garden knows scores of plants which, in spite of their beauty, have made him sometimes regret their introduction into his borders, owing to the impossibility of making them respect their neighbours' territory. They come up "all over the place" in various unexpected ways, and scramble over every weaker plant, or grow up round it in suffocatingly close ranks of sturdy shoots, or send out great spreading tufts of leaves which flop down in autumn and smother all the small plants within reach. If we had party politics in the garden these plants would be the "Jingoes," and a Radical horticulturist might find the greater pleasure in a field day among them with a hoe.

THE WEAKNESS OF PLAIN-DWELLERS.

But, viewing the matter with that dispassionate serenity which a delightful autumn morning in the garden induces, we can see how the imperial spirit has of necessity become ingrained in some races of plants—as of men—whose history has been a hard and stormy struggle for existence. You do not find a spreading rampageous plant growing naturally in the open plain where sunlight is free to all. There each plant has been content to grow on its own spot of soil, doing its duty in producing flowers and seed. It is not from the soft, contented tillers of the rich Bengal plains that we get the splendid soldiers of our Indian Army. They have no fighting spirit who have been able to live in neighbourly fashion together for ages upon the produce of their land. For the purposes of good administration—and every garden is a sort of administration—these plain-dwellers should make the best subjects; but they are so seldom worthy of it, for the truth seems to be that the very hardships which make fighters of plants and men often endow them with the finest attributes.

DROUGHT-RESISTING PLANTS.

And one of the great pleasures in a garden or among wild plants consists in trying to trace back to its origin, in the stress and struggle for existence, of each of the qualities which make up the characters of the plants of to-day. Thus, in the succulent or fleshy plant, we see one whose ancestors for ages could only survive by retaining as much moisture as their tissues could hold, either because their lines were cast in torrid lands, with long intervals between falls of rain, or because they lived in sandy soil whose moisture quickly drained away. In such places the only herbaceous



THE FEATHERED WILD PINK (*DIANTHUS PLUMARIUS*).

grows 2 feet to 3 feet as a rule, though I have heard of it growing 6 feet. It is of a branching habit, and has very loose spikes of most beautiful Cambridge blue flowers. Unfortunately, it is a great favourite with slugs.

JULY AND AUGUST

offer perhaps the greatest variety of hardy perennials of any month of the year. The Sunflowers are a very numerous section, and some are quite indispensable. One of the best is the old *Helianthus multiflorus*, 4 feet to 5 feet high, with broad ray florets, and very free flowering. An improvement upon this, as regards flowers only, is *H. multiflorus maximus*, 6 feet to 8 feet high, the ray florets bearing a greater proportion to the size of the disc. Another species, perhaps still better, is *H. laetifolius* Miss Mellish, about 6 feet high, producing a great abundance of deep yellow flowers on long rigid stems. *H. rigidum*, known also as *Harpalum rigidum*, has during recent years become the most common of all. One of the most valuable flowers for cutting, lasting in bloom as it does from June to October, is the *Gaillardia*

form of its flowers. It so readily crosses with its nearest allies that from one packet of seed flowers ranging in diameter from half an inch to nearly 2 inches may often be obtained; therefore to keep any particular form true it is necessary to propagate by layers or cuttings. This species differs from the wild Carnation in that the flowers are somewhat smaller, while the petals have their margins more deeply cut or fringed; it is also much hardier, and, although it naturally prefers and is more at home on old walls and in the rock garden, it is quite amenable to cultivation in beds and borders, where it will succeed and flower freely without any more attention than is usually bestowed upon many hardy perennials. Seedlings raised in heat in March and pricked off when large enough to handle are ready to plant out in the border in August. By the time they come into flower—the following spring—they will have formed good-sized tufts of glaucous foliage and will produce an abundance of flowers. A native of Central and Southern Europe, this plant is naturalised on old walls in parts of this country, and is well adapted for this purpose. One of the most distinct of the

plants naturally existing to-day are descendants of a long line of ancestors, who, as the centuries passed, acquired more and more of the power of storing moisture against the day of drought.

ALPINE METHODS.

So in alpine plants, which form a dense low mat of growth spreading outwards from the centre, we see the perfected habit by which their ancestors, while keeping close to the ground so as to offer little for the mountain winds to seize, managed to shade the spot in which each grew with a dense coverlet against the blistering sun, and at the same time to hold as much as possible of the rain. Many of them, too, have the power of rooting from their branches wherever these rest upon suitable soil; and, though this makes them unduly aggressive in a flower-bed or rockery, one can see how it was forced upon plants which had to feel their way, as it were, from crevice to crevice among the rocks.

HISTORIES IN LEAVES.

When, again, a plant has foliage of that cool grey-green which botanists call glaucous you may almost be sure that its ancestors grew within reach of the salt foam of the sea, and were compelled to acquire an armour-coated skin against it. Similarly all thorny plants tell us that their ancestors grew in exposed places where animals grazed or browsed, while plants evolved amid great severities of climate carry the proofs of it in very downy leaves. But, perhaps, of all plants those which most clearly show the influence of past ages are the creeping and climbing plants, each admirably adapted in its way to get outside the shade of overhanging foliage. None of them are plants which can survive in the open, where they are liable to be browsed or trampled by animals, and most of them are disseminated by birds or beasts which carry their fruits into the trees and drop the seeds there. In such cases the seedling is always confronted by the necessity of reaching the distant outer sunlight somehow, and, according as each species has learned to attain this end by ascending the trees or creeping along the ground towards the light, it is classed as a climber or a creeper, though

there are many which are equally adroit in both capacities. And such gifts, with their accompaniment of ceaseless movement and tendrils which literally feel all round for something to catch hold of, are none the less wonderful when we see how simply they have been developed by natural stages from the common gift of all vegetable growth to turn towards the light, and how this in turn is simply the natural result of the working of an universal law.

By no means the least interesting are those

always those whose ancestors have been forced to retain a place in the sunlight against the encroaching shade of greater growths above them. Had they been completely overshadowed they might have become weak creepers and climbers, or even parasites; but, planting themselves always boldly upon the outskirts of the forest growth, and moving always forward as it advanced behind, they have acquired qualities which make them, perhaps, the best fighters in the vegetable world. And so, when in autumn one discovers that

this or that uncontrollable clump has fairly smothered some foreign weakling which we had hoped to cherish, a touch of fellow feeling may prevent us from rooting the whole thing up and flinging it on the rubbish heap.

E. K. R.

CORDYLIN INDIVISA VERA.

THIS magnificent plant is seldom met with in gardens in this country. It is a native of New Zealand, and from my experience of it here during the last few winters I think it will prove hardy in many parts of the British Isles if it is placed in a position sheltered from the wind, which spoils the leaves by splitting the ends of them. An excess of moisture at the roots during the winter is fatal to it, therefore it should have a well-drained soil, composed of leaf-soil, peat, loam, and sand. The plant photographed has seventy-four fully developed leaves, each on an average 4 feet 6 inches long and 6 inches wide. The colour is pale green, with a deep orange midrib and veins. The plants in the gardens here were raised from seed imported from New Zealand some years ago, and I am informed on good authority that no plants have been grown in Europe since

Messrs. Lee of Hammersmith raised some in 1840 or thereabouts. It is such a noble plant that it is a pity it is not more common. It has stood out here during the last four winters, and is not injured by ordinary frosts, but in a very severe one we cover it with a couple of bass mats, so as to be on the safe side until we succeed in getting up a stock of it.

J. RYAN.

The Gardens, Castlewellan, County Down.



DRACÆNA INDIVISA VERA AT CASTLEWELLAN. (From a photograph sent by the Earl Annesley.)

plants whose imperial instincts seem to have a British character, since they send out colonies as offshoots from the parent stem, and establish flourishing communities of themselves among all their weaker neighbours, eventually crowding these out altogether; for that which has always tempted the Britisher to take root in new countries has been the feeling of being cramped and overshadowed at home, and the plants which follow the same habit are almost

THE FRUIT GARDEN.

NEW CRABS AND THEIR VALUE IN THE GARDEN.

ON the 20th ult. the fruit committee of the Royal Horticultural Society had some interesting exhibits before them, no less than three distinct new varieties of Crab Apples being staged, and two obtained an award of merit. The Crabs are most useful for garden decoration, and I think in the desire to have showy plants of late years the Crab has been neglected. Of course, as a fruit it takes a second place, but even then such fruits as some of these trees produce have their value, as they make excellent jam and may be used in other ways in a cooked state. For some years I have advocated in THE GARDEN the culture of *Pyrus Malus* for its beautiful flowers alone in the month of May; they are very beautiful. Last season I was charmed by seeing in several old gardens a good number of the older varieties—the Siberian and the Dartmouth—planted in groups. Many might grow the Crab in small gardens, as when spurred back annually they make very pretty bushes or pyramids. Of course, this mode of culture is very artificial, but it is surprising what a wealth of bloom the trees produce when grown in this way, and they fruit grandly, rarely failing to produce even when grown in poor soils. I think this should not be lost sight of, as in some places the Crab in its various forms could with advantage be grown. They are most effective when grown as single specimens on grass. At Syon we have John Downie Crab in this position, and the trees are very fine with festoons of richly-coloured fruits in autumn. The trees are then shapely and more interesting than when grown in crowded shrubberies. *P. Malus floribunda* is a splendid lawn tree. The foliage of this variety is now changing colour. There are two forms. The older form is very pretty, whereas the new one is a large-fruited kind. The leaves in the autumn are quite yellow, and in the distance resemble a *Laburnum* in blossom. To describe some of the best of the older forms of these interesting trees would take up too much space, and I will briefly note the value of the newer forms.

I have referred to the Dartmouth, one of the best for cropping and richly-coloured fruits. This and the John Downie should be in all collections. Many varieties hold the fruits till frost, so that makes them more valuable. A very beautiful crimson Crab introduced by Messrs. Cheal—Cheal's Crimson Siberian—is most effective, and a good companion to John Downie and Dartmouth. The newer Transparent is a pretty yellow fruit and not unlike the older Siberian Yellow, but it has larger and bolder foliage. There is a new weeping variety—the Elise Rathke; if grown as a standard it is most effective. Another form, the new American Oblong, is a light yellow fruit striped with crimson and carmine; a very striking variety.

The new kinds given awards at Westminster were notable for their good eating qualities. One, Frétingham Victoria, a round, bright crimson fruit, should be valuable for making jelly. The new Veitch's Scarlet is unusually large; this was obtained by crossing the Red Siberian with Apple King of the Pippins. Last season Messrs. Veitch sent out a new Crab, Mrs. John Seden; this was the result of crossing Transcendent with King of the Pippins. Evidently the last-named is a favourite sort to work upon, and gives splendid results. The variety Mrs. John Seden is quite a new type; the fruits are large and more resemble the parent Apple. The colour is a light orange, spotted with crimson, flesh firm and crisp, with a pleasant acid flavour. This variety is well worth growing for its fruits alone. G. WYTHES.

RASPBERRIES AND STRAWBERRIES IN AUTUMN.

(Continued from page 229.)

STRAWBERRIES.

THESE resolve themselves under three heads for autumnal supplies, each distinct in itself, viz.:

1. The Alpine or Quatre Saisons of the French.
2. The so-called perpetual-fruited varieties, of which St. Joseph may be taken as the type.
3. The plants that have been forced in the spring, from which a secondary crop may be obtained.

1. The Alpine Strawberry has been catalogued for very many years in almost every nurseryman's list, being offered as runners. This is a great mistake, and as such should be erased from all catalogues. Owing to this system of cultivation from runners it is no wonder that these Strawberries have never become popular, or even satisfactory under good culture.

When raised, however, annually from seed success may be assured, even under moderate conditions. The difference between seedlings and runners is most marked, both in vigour of growth and fertility. Our plan is to sow the seed every spring from the middle of March to the middle of April. This is done in shallow boxes, 1 foot by 2 feet, rather than in pots or pans; hence the seed is not sown so thickly, whilst moisture is retained for a greater length of time. The soil used should be light and friable, say leaf-soil and sandy loam in equal proportions. A house or pit where the temperature can be kept at from 55° to 65° will be a good place for raising the seedlings. When these are large enough to handle and have made a fair amount of roots they should be pricked off. For this we use boxes of the same size as for the seed, putting about fifty young plants in each box. At this distance apart they do not become drawn up or weakly, whilst with each plant when next transferred to a border outside a good ball can be secured. The pricking off should be finished in May, the plants being then kept in a cool frame for a time until established and growing freely. Then, if the room be wanted, they can be stood outside. Later on—say, during July—the stock is again moved, being this time transferred to a partially shaded border (ours faces the east). Here they are put out with as much soil as possible at about 6 inches apart, so that a small hoe can be worked between them. Here they remain until October, when as a plot of ground becomes vacant they are planted out in their fruiting quarters.

Meanwhile, all that need be done is to keep the ground well stirred and any young runners removed, paying attention to the watering during hot weather as may be needed. The ground selected should be well trenched, being manured according to its needs. We use farmyard manure and lime. Light soil is preferable to a close retentive soil for the Alpine Strawberry, whilst if somewhat shaded it is just as suitable for the well-being of the plants. The ground should be set out for the rows at 18 inches apart, then plant three rows and miss one; thus a 3-foot space is left between each bed of three rows. If the ground be limited, some space might be spared by planting four rows instead of three and then miss one row. Plant firmly and water afterwards. If slugs or worms are troublesome, an occasional light dusting with lime will serve a good purpose. During frost the plants may be somewhat loosened; should that occur they should be made firm again when a thaw has taken place. Besides keeping the ground well stirred upon favourable occasions, no other attention will be needed until the first flower-spikes and then the runners appear. These should all be removed up to the first week in July, after which about half only should be taken off ten days later on, so as to give a succession. These seedling plants will under this treatment give a good succession of fine fruits and in quantities from the end of August well on into October, or for nearly two months. This plantation will commence to fruit in the regular season the following year, ripening about the same time as Royal Sovereign, but continuing until the next set of young plants are again in bearing. Thus Alpine Strawberries may be had without any difficulty whatever from about June 20 until the third week in October, or over a period of about four months.

Varieties.—The best to grow of the Alpine Strawberries are Rouge Amélioré, or Improved Red, which produces elongated fruits of a bright colour; Sutton's Improved Red, which is somewhat similar and of robust growth; Belle de

Meaux, which has darker coloured and rotund fruits; and the Improved White, which should be grown for the sake of its colour. All are equally fruitful and also of high flavour. In gathering the fruits we pick straight away into small fancy baskets, which then go upon the table as they are; or, if for travelling, into small square baskets or punnets, which are then packed into boxes. When picking for the former purpose no stems are taken with them. No plants are fruited after the second year's crop is taken. We grow about 1,000 from seed every year.—J. HUDSON in the Journal of the Royal Horticultural Society. Reprinted by permission.

(To be continued.)

CORRESPONDENCE.

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

PROPAGATION OF HERBACEOUS PÆONIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In the very interesting paragraph on the propagation of herbaceous Pæonies, supplied by "G. B. M." to your issue of the 17th ult., there are one or two points upon which I hope he will help me. (1) To cover with 8 inches of light soil, does he raise a pyramid of soil over the stool? (2) Will the resting buds, to be looked for in September next, be under the surface of this pyramid? (3) Is it the old soil of the pyramid that is to be cleared away, or must soil in use before the pyramid was erected be removed also? H. K. M.

[1] A pyramid of soil would throw off rains; a plateau would be better. (2) Yes, the resting buds of Pæonies (*P. chinensis*, the florist's Pæony) are formed just below the surface of the soil; smaller buds form on the stool itself, but the uppermost buds are the strongest. (3) The soil that is placed over the stools is to be cleared away after the young plants are severed. The original soil need not be disturbed; merely loosened to admit of the young plants being severed with their roots intact. Strong double Pæonies will often form three or four resting buds on one rooting axis. These may be removed individually with a portion of the stem and its roots attached, potted, and grown on in a little warmth till planting time to encourage further root action.—G. B. M.]

MIGNONETTE MILES'S HYBRID SPIRAL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was glad to see that Mr. Crook had a good word for this Mignonette. For years I grew standard and bush-trained specimens. The former used to produce from 200 to 300 spikes, many of them 15 inches long, and they were very sweet. In growth I found this variety was all that could be desired, being amenable to close pinching and training as a standard. Machtet and some other huge-spiked varieties are all very well when grown as market plants in 4½-inch pots, but as specimens they can never be popular, as they do not make sufficient growth. E. M.

SALVIA HORMINUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This Sage is not often seen in gardens, a matter that is difficult to account for seeing that it has much to recommend it, not the least being its unusual colour, and one found in but few plants. Other recommendations are its free growth and that it can be raised from seed in spring. Last year, when visiting Melbury Park, I was charmed with its fine colour in a bed, and also with *Salvia patens*, that made a lovely show with its bright blue flowers. I obtained seed and sowed it in the spring in pots, growing the seedlings in a frame. This we used near dwarf yellow Marigolds, red and white Phlox Drummondii, and have given much

colour throughout the summer. It is not much affected by rain, and continues to flower right through the summer; it is excellent to cut from. With me in good soil it grows about 12 inches high. J. CROOK.

APPLE LADY SUDELEY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In your issue of the 3rd ult. (page 163) Mr. Field praises this variety for its free-bearing qualities. With me in the west it is just the opposite. I have a bush, twelve years old, on the broad-leaved Paradise stock, 9 feet high, in a most sheltered position. During this time it has not given us two pecks of fruit. On several occasions it has needed lifting and root-pruning. This has reduced vigour, but has not converted it into a free-bearing tree. We have it also growing as an orchard standard in a more exposed spot; here it cannot be considered free-bearing, although it behaves better than in the bush form. Probably with Mr. Field the soil is drier; the air certainly is, as we are within ten miles of the sea as the crow flies. When living in West Norfolk I often found many plants thrive better there than here in the west. Most Pears here are far inferior in flavour to those grown in Norfolk. I have never had better flavoured Glou Morcean than used to grow on a bush tree in that county. In the west the excessive moisture may account for the behaviour of this Apple.

Chard. J. CROOK.

CARNATION MISS AUDREY CAMPBELL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The enclosed photograph shows a spray of this most valuable border Carnation gathered from a town garden. I know of no better yellow variety for a garden that is more or less surrounded by bricks and mortar. It is hardy, grows vigorously, and blooms freely.

Fimchley. T. B.

PENTSTEMON NEWBURY GEM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I completely endorse the remarks of your correspondent on page 218 in praise of this valuable plant for gronping, producing as it does erect yet graceful panicles of bright red flowers from mid-summer until late autumn. P. barbatus is another species of value for the mixed border. Unfortunately, its growth is rather straggling, although if allowed sufficient space the flower-stalks will be strong enough to carry the inflorescences of delicately coloured flowers without the addition of temporary supports, which are so undesirable in the garden. The florist's varieties of Pentstemon when grown for a similar purpose have a more telling effect by planting in groups of distinctive colours.

Roth Park. H. R.

CURL IN POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice that Mr. E. Hobday, in his most interesting article on experimental work in the Potato field (page 194), refers to the now common disease amongst Potatoes known as curl in the leaf, and I venture to add a few remarks on the subject. I question whether Potato growers generally realise how seriously crops are affected by its presence. When we get a bad attack of the blight (Phytophthora infestans), such as we had last year, everybody is talking about it, and the evil visitation is generally deplored, but few people seem to attach much importance to the curl disease; and yet, if statistics could be given, it is an open question whether the latter trouble has not been responsible for a greater shortage amongst Potato crops during the past three or four years than even the dreaded blight.

Probably Mr. Henshaw, who manages the Potato experiments at Burgoyne's Farm, near Cambridge, is right in his contention that the curl disease is spread through want of care in selecting

sets for seed, but, unfortunately, it is difficult, if not impossible, to detect its presence at planting time, so that the ordinary grower is often the victim of circumstances. Mr. Hobday observes that more evidence of the curl could be seen in some plots of less robust varieties than the strongest growers, and this, I think, coincides with the experience of most people who have given any attention to the trouble.

I have been studying the peculiarities of the disease in question for several years, and the instances in which I have noticed it amongst vigorous-growing Potatoes, like The Factor and Up-to-Date, are small compared to the less vigorous varieties which I have seen affected. I am quite of Mr. Hobday's opinion that the sets for planting should be chosen from the most prolific roots when lifted and kept by themselves; but even if this is done there is no guarantee that curl will not assert itself the following season. In my own case I have been most careful in the selection of seed sets, and after taking them from the most healthy and vigorous plants have noticed curled leaves and spindling stems the following season. At the same time I am opposed to the method adopted by some growers in their ignorance, namely, that of saving the tubers found at the root of affected specimens for planting because they are not big enough for culinary use, and doubtless it is by such ignorant practices that many diseases are perpetuated.

So far as my experience goes, the curl trouble is more prevalent in the southern half of Great Britain than the northern portion, and last year, from a consignment of seed obtained direct from Scotland, there was an almost entire absence of the disease, while amongst the same varieties grown from home-saved seed in the south curl was very prevalent. Except that it is generally worse amongst medium than vigorous-growing sorts, I do not think that the curl disease is a respecter of varieties, and this year it has caused considerable disappointment amongst such high-class Potatoes as Evergood and Sir John Llewelyn. One peculiarity about it is that in most cases, when the leaves are curled and the stems are spindling, the old tuber is lifted from the ground at the end of the season apparently harder and firmer than it was when it was planted. In other words, diseased seed sets refuse to decay, but the difficulty is to know at planting time which are so.

In the case of growers of acres of Potatoes the difficulty is very real, but in garden culture, where there are facilities for setting up the tubers to sprout before being planted, it may, perhaps, be got over by discarding those which, after being exposed to the light for a reasonable time, remain dormant or only push weakly sprouts. If any such tubers are cut, it may be observed that the interior is dry and woody instead of being juicy as a properly preserved Potato should be. Last spring I had a quantity of seed Potatoes set up to sprout a little before being planted, and I took the trouble to pick out those which had refused to start and planted them by themselves. Without an exception the plants were affected with the curl, and I got nothing except the old tubers and

a few tiny little specimens that were adhering to the parents when they were lifted.

Cottagers and small growers who are obliged to depend largely on home-saved sets for planting have suffered considerably through the curl trouble, and by this method of propagation it has doubtless been spread; but it is now so general that even when purchasing tubers from the most reliable sources one has to take the chance of whether they will acquire themselves satisfactorily after being planted or not.

In concluding his remarks on page 194 Mr. Hobday comforts himself that the matter will no doubt receive proper attention, and I presume he means at the hands of the Potato-growing fraternity



CARNATION MISS AUDREY CAMPBELL.

in general. I hope this will be the case, but while the grass grows there is a possibility of the horse starving, and at the present rate of progress the curl disease will soon be a bigger bugbear to Potato growers than the common blight.

G. H. HOLLINGWORTH.

ANNUALS AS BEDDING PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—One of the prettiest gardens that I have seen for a long time was filled with annuals of various kinds. There was not a single plant of any of the so-called "bedders" in it. There were Balsams,

Asters of various kinds, fragrant Ten-week Stocks, dwarf and climbing Tropaeolums, Everlastings with their many curious tints, Grasses, and other things too numerous to mention. Roses here and there, with a few good hardy perennials, completed the display, which was very instructive, as it illustrated admirably the value of half-hardy annuals, and proved that a gay garden in summer is a possibility without the aid of those plants that are costly and troublesome to keep through the winter. The fact seems to be that the capabilities of annuals are known to very few flower lovers. The primary outlay is small, the culture is simple, and the results are out of proportion to the expense incurred. With the exception of the zonal Pelargonium, annuals equal bedding plants in brilliancy, whilst they exhibit greater delicacy of tint. The soft shades of colour of Ten-week Stocks are particularly pleasing, and in Drummond's Phlox we get great brilliancy as well as refinement of tint. Annuals are too often grown in a haphazard way. Sown thickly in pans, and left in them till the "bedders" are in place, they become drawn and spindly, and are then hastily consigned to positions that may want filling up. These are often in the impoverished soil in the foreground of shrubberies, where they cannot obtain a fair share of either moisture or nourishment. Asters with highly developed blooms, and Balsams 18 inches high, with proportionate lateral development, cannot be grown in this way. It is only in deeply-stirred, well-manured ground that the true characters of the plants are displayed. To those who have hitherto grown annuals in a haphazard way, the sight of them in the grounds of some large English or Continental seed grower would be a surprise. Drummond's Phlox is a host in itself, and every bit of good culture bestowed on it has its reward. The true nature of it is too often suppressed by a meagre diet. It wants plenty of good rotten manure worked in the ground at planting time. Put this down to a depth of a foot and you will have no reason to discard this annual for its fugacious character. If there is a summer-blooming plant that needs generous treatment it is this one. If it does, in a dry time, show signs of exhaustion, give a top-dressing of some stimulant, and wash it well in and you will get a good display of bloom up to the advent of frost. Give annuals the same good culture as bedding plants; give them a place of honour instead of just using them as stopgaps, and you will have no cause to complain of their want of effectiveness. It should, moreover, always be borne in mind that the same good treatment that gives perfect flowers ensures their remaining in beauty for a considerable time.

French provincial gardens are, as a rule, not so well provided with glass houses as in this country. The pleasure grounds are, however, often of considerable extent, and it is surprising to see how well they look in summer, when, perhaps, the only means at command is one orangery and some frames. These latter, however, the French gardener always has plenty of, winter salads and Melons being classed among the indispensable requisites in a French household. Thus he has the best means of raising and bringing on sturdily any amount of Asters, Marigolds, Balsams, &c. The attention thus being more concentrated on this class of flower, most of the French growers of them take great interest in improving the standard of excellence. In looking through some country gardens the gardener will probably point out some particular strain of Aster, Balsam, &c., which he will tell you has been worked up to a high state of excellence by careful selection over a period of years. I have seen wonderfully fine strains of Asters in such places, and I never saw such good double and single Petunias as in French gardens. In conclusion, I would urge awarding to half-hardy annuals a more important position than they now occupy. Their beauty in the adornment of the summer garden is great, and the pleasure they confer is obtained for a slight outlay. J.

PROPAGATING AND PRUNING THE LOGANBERRY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am much indebted to Mr. G. A. Knight for reminding me of my omission at page 112,

where I stated that the Loganberry should be propagated by suckers. I was writing more from a private grower's point of view, namely, one who only requires a few plants. In this case it was a good plan to get them by suckers. I am aware such a method as regards numbers would be useless, and at page 186 the information given will be valuable. At the same time I should have added that the plant roots readily when the shoots are layered from the parent plant. I have frequently seen shoots that have been left some time on the soil making roots freely. This shows how readily the plant can be propagated. My earlier note concerned more its culture in a private garden. We do not require such large quantities as in a nursery, and why I referred to propagation was that a friend of mine had a goodly number of plants that had evidently been raised from seed, as, though they made a most luxuriant growth, they bore very few fruits. These were small in comparison with the ordinary plants that were first sent out, so that to save time and prevent disappointment it is well to get plants by suckers as described at page 112, or by layers as Mr. G. A. Knight advises.

At page 186 "T. E." asks the best way to prune, and as the plants are evidently making such a splendid growth they have done well. Taking a great interest in these plants from the start, I am pleased to give our mode of pruning, which is very simple. I do not say it is the best way, but at any rate we have secured very fine crops of fruit. We treat the Loganberry in a similar way to the ordinary Raspberry. As soon as the last fruits are picked we then prune, entirely cutting out the old fruiting wood and placing the new wood in position. "T. E.'s" plants being grown on a fence, I would advise laying in the new wood nearly full length, as next season the plants will fruit the whole length if the wood is a good size. Any small spray or crowded wood at the base may be cut clean out. The chief points in culture are to grow sufficient good growths in the season to take the place of the old. There is no gain in crowding, so that it is well to cut out as the shoots get large those that are in the way or crowding others. Always reserve the strong ones for future cropping. If the plants are attached to stakes, three to five canes or growths should be kept shortened to 6 feet and grown like the Raspberry; if to a trellis, the shoots should be longer and more may be left to a stool. G. WYTHES.

PHYGELIUS CAPENSIS IN THE NORTH.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is interesting and useful to compare notes upon this valuable autumn-flowering plant with "S. W. F.," whose note in THE GARDEN of the 1st inst. I have read with pleasure. Its value as an autumn plant is undeniable, and even with us in Scotland it frequently flowers until December if the weather is at all mild. There are, however, some parts further inland and in the north where it does not retain the shrubby habit it has here. I have it fully 6 feet high, and its growths remain practically unharmed by the cold. Even if the tender parts of the branches are destroyed in spring growths soon push from the main stem, and in autumn the Phygellus is as fine as ever. It does best with me on dry rockwork and against a low wall surmounted by a trellis, which breaks the full sweep of the severe north-west winds. It has a strong tendency to increase by sending up suckers. This is particularly noticeable on rockwork, and here I have occasionally to cut some of these away. It is easily raised from cuttings, for which purpose portions of well-ripened wood should be used and inserted in light soil in a pot in autumn. Some gardeners strike cuttings annually, as they consider they then get better spikes, but the resulting plants are naturally less effective than large old specimens left undisturbed for years. Probably the reason of its shy-blooming in some gardens is that it has too heavy a soil or too much moisture at the root. Where it is at its best here the soil is exceedingly dry in summer. I have just measured my best plant, and find that it is 6 feet 6 inches high, 4 feet from wall to front, and 7 feet

across, while there are ninety spikes of flower. Some of these are over, but others are fresh and in perfect condition. I know this plant in many parts of Scotland, and, as already remarked, it is hardy in most places, even high up on the hills, although there it may be cut to the ground.

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

GARDENING OF THE WEEK.

FLOWER GARDEN.

PLANTING SHRUBS AND TREES.

ALTHOUGH many hardy trees and shrubs may be successfully planted at almost any time during the next five months, providing the ground is not frozen, the best time for most trees and shrubs, and especially conifers, is from now to the latter end of next month. The earlier the work is done the better, for early planting means a longer period for the formation of fresh roots, which will materially assist the plant to withstand any severities of the coming winter. It is advisable to make all preparations at least a few days before the actual planting is done. The extent of these preparations is a matter to be individually determined. In making a new shrubbery it may or may not be necessary to drain the land. If the natural soil is of good quality and suitable for the class of shrubs it is intended to grow, no addition will be needed, and, on the other hand, a quantity of fresh soil may be required. If it is intended to fill up any blanks in an existing shrubbery, it is usually necessary to make a good-sized hole and entirely remove the soil, or, at the least, replace a considerable portion of it with fresh.

PLANTING.

All bruised roots should be cut back to the sound portion with a clean upward cut. Unless the roots and ball of soil are thoroughly moist, the whole should be immersed in water for a few minutes. Planting in a dry state is responsible for many apparently unaccountable failures. Once planted when dry, it will take a surprising amount of rain and waterings to render the ball moist again. As a rule it is best to plant on a slight mound to allow for settling. Where the ground is level it will be found that conifers will thrive best if kept raised. Unless the soil is of a very heavy nature it should be well rammed, and a good watering is usually advisable. If it is needed, fix a stout stake at once.

TRANSPLANTING.

This work should also be done as early in the autumn as possible. Before starting upon heavy subjects it is wise to see that all the gear to be used—ropes, levers, planks, &c.—are equal to the strain likely to be put upon them, or a regrettable accident may occur. In the shrubbery weeds are again growing fast. At this time of the year the weather does not allow much hoeing to be done. A good alternative is to skim off and invert, weeds and all, a thin slice of the surface.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

BEGONIA GLOIRE DE SCEAUX.

MORE than any plant of its class perhaps this is ornamental during winter. Growing the plants too robust is often the cause of their failing to flower satisfactorily. They should not have large pots and a rich soil, but when the plants are in flower a little liquid manure applied with care to their roots will prove beneficial. A high temperature is unnecessary, but exposure to light with air in moderation should be given.

BEGONIA CORALLINA.

If kept growing until the spring of next year this will produce flowers in abundance. The object should be to produce a firm, short-jointed growth, and the use of stimulants of any kind should during the winter months be avoided. The roots appear to like lumpy fibrous loam, peat, a little dried cow manure, and some sand.

CALADIUMS.

Sometimes these plants are kept growing a little too late in the season, the result being that the following year the bulbs fail to start again freely. Occasionally during the winter they die away through immaturity. Every variety should by this time be put away to rest. A temperature of 45° in a dry house will suit most of them, but *C. Argyrites*, which is somewhat tender, should be given a temperature of not less than 50°.

AMARYLLIS.

The weakening of these bulbs is often the result of continually hurrying them into flower. There is a proper season for them to flower, and they should not on any account be forced prematurely, and afterwards encouraged to make growth. The temperature in which they ought to be wintered should not fall lower than 48° to 50°, and should be perfectly dry. Here they will remain until they show flower, which under ordinary circumstances will be about February and later.

ERICA AND EPACRIS.

Although the last-named plant differs somewhat in appearance and is more robust than the *Erica*, the cultural conditions for both plants are identical. They must at all seasons be given plenty of light, with abundance of fresh air to check mildew, a disease to which *Erica* is more susceptible than *Epacris*. Discontinue syringing the plants as well as damping the stages on which they are placed, but on very bright days water may be sprinkled about the floor of the house. Give water judiciously. Although the careful use of guano water and Clay's Fertilizer may have a beneficial effect upon the earlier-flowering soft-wooded varieties, the use of stimulants in general should be discontinued.

LACHENALIAS.

Bulbs just commencing to grow should be given attention. In some cases it may be necessary to repot them, while in others a top-dressing of fresh soil will suffice. In any case they delight in a fresh rich soil. Until now they have occupied a position in the cold frame, but will require moving to a shelf that is near the glass, as they do best with abundance of light and air and a cool temperature. Do not apply stimulants until the plants are rooting well, and then with much care.

J. P. LEADBETTER.

The Gardens, Tranby Croft, Hull.

FRUIT GARDEN.

PINES.

PLANTS, the fruits of which are now developing, should have a night temperature of 70° to 75°, according as the nights are cold or mild, and a steady bottom-heat of 85° to 90°. Cover the pits at night with mats to save hard firing, as the latter reduces the moisture necessary for the plants. Cease syringing, but damp the surface of the beds, paths, &c. Watering must be carefully done, and strong applications of liquid manure must be avoided. A drier manure or weak applications of guano water are more suitable at this season.

SUCCESION PINES.

The earliest successions will need a lower temperature and also less moisture. A night temperature of 55° to 60°, about 70° by day, and a bottom-heat of 70° to 75° are quite high enough at this season. Only sufficient water is required during the present month to keep the leaves from shrivelling. Admit a little air on all favourable occasions, closing the house not later than 2 p.m. Keep later plants in a moist atmosphere, with a steady bottom-heat.

SUCKERS.

These will require more careful management as soon as they have filled their pots with roots. Arrange the plants so as to give them plenty of light and air, and see that they do not get too dry if plunged over hot-water pipes. A safe bottom-heat for these is 70° to 75°.

POT VINES.

If it is intended to force these early next month they should now be cut back and all lateral growths removed. The canes must be thoroughly ripened,

as it is no use attempting to force canes which are still growing. They should be kept rather dry; keep a little warmth in the pipes, with plenty of air.

GATHERING FRUIT.

It will now be necessary, owing to the succession of cold nights, to gather nearly all late varieties of Apples and Pears which are still hanging on the trees. Very late Pears which are in a sheltered position should be looked over, and those which are not matured allowed to hang a week or two longer if the weather remains favourable; the fruits will then keep better, and also be of better flavour. Any late varieties of Plums still hanging on the trees should now be gathered, and be either wrapped in tissue paper and placed in boxes, or laid thinly on the fruit room shelves, where they will keep in good condition for some time.

Impney Gardens, Droitwich. F. JORDAN.

KITCHEN GARDEN.

CABBAGE.

INSPECT plots of recently put in plants, and make good any blanks from the seed-bed. See that the plants are made firm in the soil. If the first planting has made good progress they may be earthed up. Should this open weather continue another lot may be got in, choosing a sheltered position. These would be likely to come safely through a severe winter better than those that have made much growth. Inspect crops of winter Cabbages, Savoys, &c., removing all decaying leaves and pulling up large weeds. See that young plants in the seed-bed are not too thick, as they soon become drawn and useless.

BROCCOLI.

This vegetable has made extra strong growth in this district, and if not soon checked by frost they should be partially lifted. No lifting has been done in this garden for some seasons, and if the hardiest varieties are grown it is not often necessary. In cold gardens, however, it is wise to be on the safe side. When lifting just raise the plants sufficient to snap the strongest roots, then make the soil firm round the plants.

FRENCH BEANS.

These are now giving out, but the plants in frames may continue bearing for a short time. If it is still necessary to maintain the supply they must now be grown in heated houses. French Beans are not a profitable crop at this season of the year; from now on to the middle of January is the most critical time. A smaller-sized pot should be used during the next three months; a 6-inch pot will be ample. See that they are well drained. A compost may be made up of old Melon-bed soil, lightening it with some dung from an old Mushroom bed. Only half fill the pots, leaving this space for future top-dressings. Six or eight Beans may be sown in each pot, reducing the seedlings to five of the strongest. During the winter months, being weak in growth, they will be liable to attacks of red spider, and the plants must be syringed slightly at least twice a day, except when in bloom. Afford air when the weather is mild, and grow on as sturdy as possible.

CELEBY AND LEEKS.

Another earthing should now be given to these, choosing a dry day for the work. Break up the soil finely with the spade, packing it round the plants with the hand. If extra large Leeks are required the feeding may still be carried on. Liquid manure from the farmyard will be most suitable, or fortnightly dressings of artificial manure. The latter should be well watered into the soil.

GLOBE ARTICHOKE.

These will require protection on the first appearance of frost. Light, rank manure may be placed round the crowns and well up the plants. Another plan is to place stakes to each plant and cover over with mats. Clear off all dead leaves and flower-stems. Remove suckers and pot them if this has not already been done.

Hoptoun House Gardens, THOMAS HAY.
South Queensferry, N.B.

ORCHIDS.

WATERING.

CORRECT watering is of the utmost importance in the management of Orchids, although during late spring, summer, and early autumn a little indiscretion is not noticeable when the outside conditions are such as to cause quick evaporation. Now with shorter and less sunny days it is essential to guard against over-watering. The point to be observed is to maintain the plants in a sound, plump state with the least possible amount of direct watering. When rhizomes have been used for drainage and the compost used contains some leaf-soil much less water will be needed than if peat and moss and crocks were used. Again, it will be necessary to discriminate between plant and plant of the same variety. Those that have completed their growth and are not going to flower for some time require much less water than those that have not finished growing.

DAMPING.

I prefer using this means as far as possible to keep the plants plump. The amount of moisture necessary varies very considerably in houses, so it will be sufficient to say that humid conditions are essential whenever the temperature outside allows. During very cold weather I would rather forego damping and keep the houses dry and the temperature below the normal. Excessive firing is undoubtedly harmful, and the plants will winter far better if when the weather is bad these precautions are taken.

TEMPERATURES.

On giving temperatures for the coming months I will take the outside night temperature at 40°, morning at 56°. All the houses may be lowered 5°, and during hard frosts, if the plants and house are dry, 8°. On the other hand, when the outside temperature is higher, a rather higher temperature may be kept, providing a fair amount of fresh air is admitted through the bottom ventilators. Stove Orchid house, night, 70°; morning, 68°, rising with sun-heat to 90°, without sun to 75°. Cattleya house, night, 65°; morning, 62, rising with sun-heat to 85°, without sun to 70°. Intermediate house, night, 62°; morning, 59°, with sun-heat to 85°, without sun to 68°. *Odontoglossum* house, night, 58°; morning, 55°, rising with sun-heat to 75°, without to 60°. Except in very bad weather keep some bottom air on all houses and a liberal amount on the *Odontoglossum* house. W. P. BOUND.

Gatton Park Gardens, Reigate.

RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for October contains portraits of

Lonicera Etrusca var. *superba*.—Native of the Mediterranean region. This is also known under the following synonyms: *L. hetrusca*, *L. gigantea*, *L. Charlotti*, *Caprifolium periclymenum*, *C. etruscum*, and *C. dimorphum*. This is a handsome Honeysuckle, and apparently free blooming when grown under glass, as in the North American section of the Temperate house at Kew, but in the open air, though perfectly hardy, it will not bloom at all.

Mucuna sempervirens.—Native of China. This is a curious but not very beautiful trailer with large pendulous branches of purplish black flowers. The seed-pods and other parts of the plant are clothed with stinging hairs, which give it the local name of Cowhage or Cow-itch. It flowered for the first time in 1903 in the Temperate house at Kew.

Loropetalum chinense.—Native of India and China. This is also known as *Hamamelis chinensis*. It is a curious hardy shrub, whose flowers consist of bunches of narrow pure white filaments resembling those of the *Chionanthus* or Fringe Tree. It bears mild forcing quite well, and flowers freely in small pots, when it is very ornamental. It was well shown recently at one of the Royal Horticultural Society's fortnightly shows by Messrs. Veitch.

Zygoclox Veitchii.—Native of Brazil. This plant is also known as *Zygopetalum Veitchii* and *Zygox Veitchii*. This is a rather handsome Orchid, producing spikes of large flowers, the upper petals of which are green, thickly spotted with brown, while the large lip is white, deeply veined with purple. It is of hybrid origin, being the result of a cross between *Clox Jugosus* and *Zygopetalum crinitum* effected by Mr. Seden.

Jasminum primulinum.—Native of Western China. This is an extremely handsome and free-blooming evergreen Jasmine, with large, bright golden yellow flowers, some of which are semi-double. It is one of the many fine plants sent to Messrs. Veitch by their collector, Mr. Wilson. It is believed never to bear fruit or seed, but propagates with great facility by suckers, and can also be easily increased by cuttings, which strike very quickly. It is thought to be an improved form of *J. nudiflorum*, which under different climatic conditions has become evergreen and has had its flowers greatly increased in size. It also does well as a pot plant, and is altogether a great acquisition.

The October number of *Revue de l'Horticulture Belge* gives a double plate of *Hæmæthus Lesorauxæti*, which seems to be by no means a first-class variety of these generally bright-coloured and handsome bulbous plants or at all equal to several well-known varieties already in commerce, such as *H. Catherina* and others. The number of flowers on the head seems to be small, and the colour a dull brick red. W. E. GUMBLETON.

Besides the varieties described, the firm have also numerous trials of all the leading varieties suitable for garden cultivation, and from experience gained in this manner have decided to eliminate from their catalogue many of the older varieties which are superseded by their betters.

WINTER CUCUMBERS.

It is now too late to sow seeds, but there is yet time to put out strong plants for affording a winter supply of fruits. The Cucumber requires different treatment in the winter from the summer, for during that period the plants are less vigorous, and, consequently, require to be more carefully treated. In winter considerably restrict its rooting space. To this end it is advisable to plant in hillocks of compost—loam and leaf-soil—upon a stage over hot-water pipes, and periodically add thin layers of fresh compost; this is better than planting in larger beds of soil. It is important to attend to watering, and in so doing to see that the hillocks of compost are moistened throughout so that the base does not get dry. It is also

THE INDOOR GARDEN.

A NEW IMPATIENS FROM UGANDA.

IMPATIENS OLIVIERI was introduced from Uganda last year. It will, no doubt, soon be largely grown, as it is of vigorous habit and flowers freely. Plants flowered at Kew for the first time in July, 1903. These were raised from seeds collected along the Uganda Railway by Sir John Kirk. He found it growing in clumps at an elevation of 6,800 feet, about 300 miles up country on volcanic rocks. It grows about 4 feet high, and, as can be seen by the illustration, branches freely from the base. The leaves vary in size from 4 inches to 8 inches in length and 1½ inches to 2 inches across; they are, as will be seen, arranged in whorls. In its native habitat the flower is little more than 1½ inches across, under culti-



THE NEW IMPATIENS OLIVIERI FROM UGANDA.

THE KITCHEN GARDEN.

POTATO TRIALS IN SCOTLAND.

PROBLEMS and possibilities of Potato development as they present themselves at the present time were explained the other day by Mr. W. P. Laird, of the firm of Messrs. Laird and Sinclair, at Monifieth Nursery. On the occasion several farmers in the district attended. The firm has been giving the important subject of Potato raising much consideration for the past year or two, and have now growing in their grounds a considerable breadth of the tuber. Included among those they have growing are Findlay's Eldorado, described as "one of the most prolific and best disease-resisting varieties"; Findlay's Northern Star Selected, a promising Potato; and a very fine break of Kerr's Duchess of Cornwall, a variety which stands in the front rank to-day, and a very heavy cropper. The crop should lift at the rate of at least 20 tons per acre, and these were grown from sprouts.

Sutton's Discovery was shown in good form, and is growing very vigorously. Factor is also a Potato which the party thought a lot of. King Edward VII. is doing very well at Monifieth, although they came irregularly, as all English seed did this spring, but they have filled up wonderfully. Goodfellow, another of Findlay's, sent out in 1901, develops into a very handsome tuber, and is a good cropper. Vermont Gold Coin, an enormous cropper, was lifted on September 14. Four pounds of this Potato, bought in May, were propagated by removing the sprouts and growing on, and planted out in the beginning of June. The crop lifted turned out to be over 10cwt. This, calculated out, is at the rate of 280 tons produce from one ton of seed.

During the tour of inspection various sets were lifted and weighed. Of Northern Star two were dug up in different places on the ground. The first had 33 tubers, weighing 7lb., and the second 25 tubers, weighing 7lb. One set of Duchess of Cornwall lifted had 14 marketable Potatoes, and weighed 5½lb. The Factor had 6lb. to a shaw of beautiful oval-shaped tubers. Sutton's Discovery, the great disease-resisting variety, had 12 tubers to the shaw lifted. One shaw of King Edward VII. had 31 tubers. The Eldorados, being in full growth, the party would not allow Mr. Laird to lift, but were satisfied as to their enormous cropping powers by what was exposed after the removal of a portion of the soil round an average set.

necessary to preserve a moist atmosphere, and daily syringe the foliage, especially upon its under surface, for a dry atmosphere encourages attacks of thrip. Regulating, thinning, and stopping shoots needs almost daily attention, while it is important to remove superfluous flowers and fruit early. Over-cropping is a mistake at all seasons, and especially so in winter.

The chief point in the culture of winter Cucumbers is to keep the plants vigorous. One of the principal aids to this end is a suitable glass structure heated with hot-water pipes to maintain the desired temperature without unduly heating them. It should also be light and provided with trellises, so that the plants trained upon them are kept near the glass. The greatest difficulty is to have a good supply of fruit when the days are shortest, but once this is past the growths quickly strengthen and yield fruit freely. With reference to varieties suitable for this purpose, it may be said that any free-fruited kind that is possessed of a good strong constitution will give satisfaction if properly grown. T. COOMBER.

vation it is 2½ inches. Another curious point is the colour; in Uganda it is white, while at Kew it is pale lilac, with often a rosy tint. Had the plant been in cultivation for a few years this variation would have caused little comment, but occurring on plants raised from the seed collected in its native habitat the matter is interesting.

It is readily propagated by seeds or cuttings. The latter root readily at almost any time in a propagating frame. Insert singly in small pots, and shift on as required, using a moderately rich soil. It succeeds best in a fairly moist, cool greenhouse in summer; a dry, draughty house should be avoided. During winter an intermediate house is the most suitable. Coming from a high elevation and flowering freely, it will probably be useful for summer bedding. The illustration is of a plant eight months old, raised from a cutting. It is 3 feet 6 inches high and as many through. A. O.

KALOSANTHES (CRASSULA) COCCINEA.

THIS, one of the most brilliant and useful of all greenhouse subjects, is now less frequently met with than it was thirty years ago. In the records of shows held at Chiswick and Regent's Park we read of the grand specimens of *Kalosanthos coccinea* which appeared in the collections of Messrs. Fraser of Lea Bridge, and Mrs. Lawrence. Later still, Mr. John Ward of Leyton exhibited splendid specimens of both *coccinea* and Frederick Debois varieties, one plant of the latter grown by him being furnished with a hundred trusses of bloom.

Being a native of the Cape, the *Kalosanthos* enjoys abundance of light and sun-heat, and as it is of a succulent nature it requires special treatment in autumn in order to secure a thorough maturation of the wood, a condition absolutely necessary to ensure a display of bloom. If small plants having each several strong shoots can be procured, they should have their points pinched out towards the end of February. To facilitate new growth, several pairs of leaves should be carefully removed from the tips of each shoot, and in a fortnight or three weeks new branches will appear. If these leaves are not removed the plants break slowly and often very irregularly. Nine-inch pots are the most suitable for the plants to be shifted into, these sufficing for the first summer, and perfect drainage is essential, as the plants require a good deal of water when in active growth. *K. coccinea* thrives well in a mixture of three parts rough peat and one of fibrous loam; to this may be added a liberal supply of bone-meal, road grit, and pieces of charcoal the size of horse beans. In potting, the soil should be firmly rammed and finally soaked with water to settle it round the ball. Potting completed, the plants should be placed in a light structure commanding a night temperature of 50°, rising to 75° or 80° with sun-heat, keeping them near the roof glass and supplying plenty of atmospheric moisture throughout the day. When once new growth is produced freely, abundance of air by day and a little by night must be admitted. At the beginning of May the plants may be assisted occasionally with weak liquid manure, and a slight shade in the middle of the day in bright weather will save the fleshy leaves from sunstroke. In July, if the nights are mild and dewy, the plants will be improved by being placed out of doors in a sheltered position, first securing the shoots to neat sticks. In August the plants, having made as much growth as can be ripened that season, may be stood at the bottom of a south wall to induce perfect and early maturity. In rainy weather the pots must be laid on their sides. If, however, plants of exhibition size are required, they must not be allowed to produce bloom till the third year from the above-named potting, all shoots being again pinched for new growths the following spring. For wintering the plants no place is better than a cool, dry pit from which frost can be excluded, and where they can be fully exposed by day when the weather is mild even in midwinter.

J.

SOCIETIES.

THE NATIONAL POTATO SOCIETY'S SHOW.

THE first exhibition of the National Potato Society was held at the Crystal Palace on Tuesday and Wednesday last, and proved a great success, thanks in a large measure to the exhibits from trade growers, which formed the most important feature. The competitive classes were not in all cases keenly contested—in a few there were no entries at all—but some of them were of much value and interest, especially those designed to show which variety yielded the best returns from a certain number of tubers planted; to determine the value of varieties when cooked; and to bring forward the best new seedling Potatoes. Particulars of these and the other classes will be found below. Mr. Walter P. Wright, who, together with his colleagues, has worked hard for the success of the National Potato Society, well deserved the congratulations given by various speakers at the luncheon.

COMPETITIVE EXHIBITS.

TRADE GROWERS ONLY.

Some excellent tubers were shown in the class for twelve varieties, distinct, one dish of each. Mr. Walter Ness, King's Kettle, N.B., was first. Among his best were The

Crofter, Up-to-Date, Northern Star, Evergood, and White Beauty. Mr. J. W. Christie, Scotsbaig Mains, Tayport, N.B., was second; and Mr. H. Scott, Boreham Road Nurseries, Warminster, was third. There was one more exhibit in this class.

There were no exhibits in the classes for six dishes of white rounds, six dishes of coloured rounds, six dishes of white kidneys, and six dishes of coloured kidneys.

AMATEURS.

For twelve varieties, distinct, one dish of each, Mr. B. Ashton, Lathom House Gardens, Ormskirk, was first. Some of his tubers were very large, although most were of first-rate quality, e.g., Reading Russet, Sutton's Standard, Carter's Snowball, Sutton's Satisfaction, and Sutton's Discovery. Mr. S. Cole, Althorp Park Gardens, was second with very good clean tubers; third, Mr. E. S. Wiles, The Rookery Gardens, Downe, Kent. There was one more entry.

Eight varieties, distinct: First, Mr. E. S. Wiles, The Rookery Gardens, Downe, Kent, with medium-sized tubers of Royal Sovereign, King Edward VII., Edgecote Purple, Lord Tennyson, and Pioneer; second, Mr. John Weathers, Pymmes Park, Edmonton. We could find no third prize award.

Three dishes of white rounds: First, Mr. F. G. Crampton, Gate House, Sissinghurst. The varieties shown were Charles Fidler, Snowball, and Up-to-Date; Mr. S. Cole, Althorp Park Gardens, was second; and Mr. B. Ashton, Ormskirk, third. There were two more entries.

There were no exhibits in the class for three dishes of coloured rounds.

For three dishes of white kidneys, Mr. E. D. Packman, The Library, St. Mary Cray, was first. He showed The Factor, Improved Kidney, and Up-to-Date; Mr. Crampton was second with smaller but excellent tubers, and Mr. B. Ashton was third. Two more entries.

Mr. Ashton was the only exhibitor in the class for three dishes of coloured kidneys, and was awarded first prize for good clean tubers of Mr. Bresse, King Edward VII., and Kerr's Leda.

COTTAGERS.

There were some very good tubers in these classes, although some of them were not quite as clean as they might have been. The chief prizewinners were Mr. S. Brodgate, Saltwood, Hythe; Eccles Gardening Society (Mr. N. W. Gray); Larkfield Gardening Society (Mr. H. Roots); and Mr. A. Hogarth, New Smallholm, N.B.

OPEN.

A very interesting class was that for "total yield of any variety from twelve consecutive roots, to be lifted under the supervision of the committee, or of a nominee of the committee, and sealed." The first prize (a cup, value two guineas, given by the Crystal Palace Company) was awarded to the variety Duchess of Cornwall, shown by Mr. H. A. Howes, Horncastle, the total yield from the twelve roots being 76½ lb.

For the best collection of seedling Potatoes not in commerce, a silver medal was given. This was awarded to Mr. John W. Boyce, Welney, Wisbech, who had some excellent tubers of Goldfinger, late, medium size, white round; Maxim, first early, medium size, white kidney; Peckover, large late, white kidney.

The best single dish of cooked Potatoes was judged to be Factor, sent by Mr. E. D. Packman, The Library, St. Mary Cray; the second prize was won by Snowdrop, shown by Mr. E. S. Wiles, Downe, Kent. Mr. J. M. Christie showed a variety called Food of the Gods, but evidently the judges did not think it so, for they gave it third prize.

SINGLE DISHES.

The best dish of Charles Fidler was shown by Mr. J. Boyce, Welney, Wisbech; of Discovery, Mr. S. Cole, Althorp Park Gardens, showed the finest tubers. This was a popular class, no less than seven dishes being shown.

Duchess of Cornwall: Mr. S. W. Miller was first for this sort; he showed very large tubers. Five dishes of this Potato were shown.

There were four dishes of Daniels' Duke of York, the first prize being won by Mr. B. Ashton, Lathom Gardens, Ormskirk. The class for Findlay's Eldorado brought five dishes, the best being from Mr. T. Stewart, Armfield, King's Kettle, N.B.

The coloured kidney, King Edward VII., was well shown, Mr. Ness, King's Kettle, Fife, having the best.

Findlay's Northern Star provided the most popular class; thirteen dishes of it were shown. The best were from Mr. T. Stewart, King's Kettle, N.B.; Mr. J. Brown, Arbroath, N.B., was second; and Mr. W. Ness, Fife, third. Thus all the prize-winners came from Scotland.

Sir John Llewelyn is an excellent Potato, and several exhibits competed in the class for it. Mr. B. Ashton, Ormskirk, was first out of six exhibitors. Mr. Ashton also had the finest tubers of Snowball, one of the best Potatoes.

The finest tubers of The Factor were shown by Mr. S. Cole, Althorp Park Gardens, Northampton. Seven others competed.

In the class restricted to societies affiliated to the National Potato Society the Larkfield Gardening Society had the best eight dishes of Potatoes, one of each kind. Among them were Up-to-Date, The Factor, Sir Walter Raleigh, and American Rose. Apparently the Eccles Gardening Society would have been first, but they were disqualified through showing duplicates. The Yalding Gardening Society were second.

THE BEST DISHES.

Prizes were offered for the best dish of tubers in each section.

Trade.

Best white round.—White Beauty. Shown by Mr. Walter Ness, King's Kettle, N.B.

Best coloured round.—Purple Perfection. Also from Mr. Ness.

Best coloured kidney.—Blue Beauty. From Mr. James M. Christie, Scotsbaig Mains, Tayport, N.B.

Best white kidney.—Duchess of Cornwall. From Messrs. D. MacNeish and Sons, Arran, N.B.

Amateurs.

Best coloured round.—Reading Russet. From Mr. B. Ashton, Lathom House Gardens, Ormskirk.

Best white round.—Snowball. From Mr. F. G. Crampton, Gate House, Sissinghurst.

Best white kidney.—Duchess of Buccleuch. From Mr. S. Cole, Althorp Park Gardens, Northampton.

Best coloured kidney.—Kerr's Leda. From Mr. B. Ashton, Lathom House Gardens, Ormskirk.

NON-COMPETITIVE EXHIBITS.

The Llewelyn Cup (value ten guineas), offered for the best exhibit of Potatoes in the show, was awarded to Messrs. Sutton and Sons, Reading, who sent up a very comprehensive and attractive exhibit. Undoubtedly the most valuable and interesting part of this exhibit was a collection of pedigree Potato seedlings (disease-resisting) from crosses made in June and July, 1903. Each group of tubers is the produce of a separate seed sown in the spring of 1904. The plants have all been grown under ordinary cultivation in their Reading trial grounds. The roots were lifted on the 7th inst., in the presence of members of the committee of the National Potato Society. Many of the roots averaged over fifty tubers each, and in one case over eighty tubers were found. Such productiveness in the case of first year seedlings is probably without precedent. Messrs. Sutton's latest introduction, the well-known and much-talked-of Sutton's Discovery, was finely represented also. The remainder of this exhibit consisted of over 150 different varieties of Potatoes, including the leading sorts of the present day.

Messrs. Dobbie and Co., Rothesay, had a very fine exhibit of Potatoes. There were 100 dishes, each dish averaging fifty tubers. The baskets and dishes were arranged on a sloping background, thus resulting in a much more effective display. Seeds and seed-pods of the Potato were very interesting as shown here. Large gold medal.

Messrs. Bakers, Wolverhampton, exhibited 100 varieties, representing almost 6,000 tubers, a wonderful display. All were arranged in baskets. Needless to say, the best varieties were shown. Gold medal.

Hobbies, Limited, arranged a good display of Potatoes, with which were exhibited Chrysanthemums, Dahlias, and Roses in variety. Among the Potatoes was a new seedling John Austen (Early Puritan × Ringleader). All the best varieties were included in this exhibit. Gold medal.

Mr. S. M. Thompson, Potato agent, Edinburgh, showed some of the famous Dalmeny seed Potatoes, as Acme, Evergood, Radium, &c.

Mr. T. H. Scarlett, Market Street, Edinburgh, showed some new varieties, as well as many of those that have become famous.

Mr. H. J. Jones, Rycroft Nursery, Lewisham, showed a collection of ninety-six dishes of Potatoes in eighty-five varieties, making a striking display. All the high-priced sorts were among them. Two new ones were Southern Cross (white kidney) and Garner's Seedling (white kidney). Silver-gilt medal.

Messrs. Cannell and Sons, Swanley, Kent, exhibited a collection of Potatoes of the leading varieties, as well as some fine Ailsa Craig Onions. Silver medal.

Messrs. Cross and Son, Wisbech, showed many of the best varieties, as Lim Gray, Northern Star, Radium, &c. Mr. Cross also showed many seedlings of his own raising, some fifty sorts altogether, as well as a root of Northern Star of some eighty tubers.

Messrs. W. Dennis and Sons, Kirton, Lincs, had a large exhibit of Potatoes, among which The Crofter was very prominent. The Recorder (estimated to yield thirteen tons per acre), Northern Star, Eldorado, Royal Kidney, Evergood, King Edward, and others were shown. Silver medal.

Messrs. W. W. Johnson and Sons, Limited, Boston, had a very good exhibit of Potatoes of the best sorts, The Diamond being prominent. Silver medal.

Mr. J. F. Williamson, Mallow, County Cork, Ireland, had a splendid lot of Duchess of Cornwall, one of the very best varieties. Mr. Williamson has prepared an interesting pamphlet giving the comparative yields of fifty-five varieties. Duchess of Cornwall comes out top with 37½ lb. from 1 lb. of seed. Northern Star only gave 31 lb. Silver medal.

Messrs. W. P. Laird and Sinclair, Dundee, exhibited a splendid lot of Scotch-grown Potatoes, and so did Mr. James Kerr, Dumfries. Messrs. Harrison and Sons, Leicester, were well represented by a collection of the best sorts.

In the exhibit from Messrs. George Massey and Sons, Spalding, the new Potato The Leader was very prominent. It is a large white kidney, and a big cropper. Many of the best sorts were shown by Mr. Massey.

Mr. W. J. Atkinson, Weston St. Mary, Spalding, exhibited the best Potatoes in quantity.

Messrs. Mackinder and Bennett, Spilsby, Lincs, showed Potato Sir John Franklin and others.

Mr. Findlay, Mairland, Auchtermuchty, N.B., exhibited specimens of his seedlings, e.g., Million Maker, Diamond Reef, Evergood, Up-to-Date, Eldorado, Northern Star, and other famous sorts.

Messrs. Cannell and Sons, Eynsford, Kent, showed a collection of Apoles, many of them beautifully coloured.

Mr. David Ransell, The Essex Nurseries, Brentwood exhibited hardy shrubs.

Messrs. John Peed and Son, West Norwood, S.E., exhibited a good table of fruit.

Messrs. W. Colchester and Co., Ipswich, exhibited fertilisers, Ichthemie Guano, &c.

Other growers whose exhibits of Potatoes, although very good, we have not space to describe, were Messrs. Anderson, Conpar Angus, N.B.; Thomas Benson, Barnston, Birkenhead; J. Bettinson, Outwell, Ipswich; J. T. Blaydes, Epworth, Doncaster; Thomas Bradley, Peterborough; W. Coleman, Culverden Down, Tunbridge Wells; Henry Drake, Wisbech; O. W. D'Alcorta, Spalding; W. Davie and Co., Haddington; George Derne, Wimbledon; James Gardiner, Perth; R. W. Green, Wisbech; H. J. Hindson, Barnsley

J. Illman, Lincoln; Importers Company, Limited, London, S.E.; Kelvin's, Edinburgh; King and Co., Coggeshall; A. Lighton, Kirtou; W. L. Malden, Ham, Surrey; Main and Co., Edinburgh; A. W. Pepper, Downham; J. Poat and Son, York; H. Scott, Warrminster, and others.

In the afternoon a conference was held on "Seed Selection and Storage." Mr. Fudlay and Mr. Redington opening the discussion. In the evening "The Organisation of the National Potato Society" was the subject, introduced by Mr. W. P. Wright. Mr. A. D. Hall presided on both occasions.

NATIONAL CHRYSANTHEMUM SOCIETY.

THE early exhibition of this society was held on the 5th and 6th inst. at the Crystal Palace, and there was a good display, although the early-flowering or garden varieties of the Chrysanthemum did not predominate.

OPEN CLASSES.

The best twenty-four blooms of Japanese varieties were shown by Mr. W. Ring, gardener to J. Warren, Esq., Capel House Gardens, Waltham Cross. The flowers were all good. Some of the best were Bronze Soleil d'Octobre, Mafeking Hero, Mrs. J. C. Neville, Mrs. H. Emmerton, and Marquis Venusta. The second prize was won by Mr. James Brookes, Totteridge Park Gardens, Herts. Mr. C. J. Ellis, Warren House Gardens, Stanmore, was third. There were two more entries.

Mr. W. Ring was first for twelve blooms of Japanese, Marquis Venusta again being very fine. This is a large flower, with broad, drooping, silvery florets, with red reverse. Second, Mr. James Brookes; third, Mr. Henry Perkins, Greatlands Gardens, Henley-on-Thames. There was one more entry.

For six Japanese blooms Mr. A. C. Horton, gardener to H. H. Platten, Esq., Uppminster, Essex, was first with excellent blooms of Mrs. W. Popham, Mrs. G. Mileham, Edith Shrimpton, Marquis Venusta, Lily Mountford, and Mrs. T. W. Pockett; second, Mr. George Kelsey, Ridding's Court Gardens, Caterham Valley; third, Messrs. Saltmarsh and Son, Chelmsford.

Mr. Eric F. Such showed the best twelve bunches of early-flowering Pompons. Among them were Stretchmeath, rosy purple; M. E. Lefort, yellow; Bronze Bride, and White Pet. Second, Mr. D. B. Crane, Highgate.

Mr. James Brookes, Totteridge Park Gardens, had the best two vases of twelve blooms each, and very handsome they were; second, Mr. John Fulford, Moor Hall Gardens, Cookham, Berks; third, Messrs. Saltmarsh and Son, Chelmsford.

Twelve bunches of early-flowering varieties, distinct: These made a delightful display, Mr. D. B. Crane, Highgate, winning the first prize with an excellent lot. Carrie, bright yellow; Robert Pemberton, rosy crimson; Mrs. C. H. Curtis, a crimson single; Rockett, bronze; Horace Martin, yellow; Kitty, lilac-pink; and Goacher's Crimson were all very good. The flowers were arranged loosely in vases, and were very attractive. Mr. Such, Maidenhead, was second. There were no more entries.

In the class for a dinner table decorated with Chrysanthemums, Miss Fairweather, Bifrons, Canterbury, was first. She used yellow and bronze varieties with good effect.

Miss Cole, Feltham, won the first prize for three epergnes of Chrysanthemums. She made use of yellow and bronze varieties.

Mr. A. Taylor, East Finchley, was given first prize for a bunch of yellow early-flowering Chrysanthemum Carrie. Prize given by Hobbies, Limited.

For six bunches of Chrysanthemums, distinct varieties, Mr. James Brookes, Totteridge Park Gardens, was first with lovely bunches of Horace Martin, yellow; Bobbie Burns, bronze; Mme. Marie Masse, Goacher's Crimson, and others. Mr. D. B. Crane was second.

Mr. E. F. Such, Maidenhead, was first for a bunch of white early-flowering decorative Chrysanthemums.

For a vase of five Japanese blooms Mr. C. Payne, Sandhills Gardens, Betchworth, was first with a very good lot of Merstham Yellow; second, Mr. H. Perkins, Henley-on-Thames, with the variety Hon. Mrs. Acland.

The first prize for a vase of early-flowering Pompons was won by Mr. James Brookes.

Mr. G. Kelsey, Ridding's Court Gardens, was first for a vase of five blooms of any variety, except white or yellow, with excellent flowers of Mrs. G. Mileham.

For a vase of five white blooms Mr. Rayment, North Oxenden, was first with Miss Alice Byron.

AMATEURS.

Twelve blooms of Japanese varieties, distinct: First, Mr. M. Rayment, gardener to W. Beech, Esq., North Oxenden, Romford. Henry Perkins was a very fine bloom; it has long, thin, twisted florets of gold and bronze. Second, Mr. W. Trowell, gardener to D. Link, Esq., The Avenue, Beckenham.

Mr. D. B. Crane had the best twelve bunches of early-flowering Pompons, but even they made a poor show. Mr. A. Taylor, East Finchley, was second.

Miss Cole won the first prize for a basket of Chrysanthemums, with a pretty exhibit of yellow and bronze flowers and tinted foliage. Miss Cole was also first for a basket of garden flowers. Mr. Such, Maidenhead, had the best basket of Roses, and Miss Brewer showed the best basket of autumn foliage and berries. Mr. James Brookes, Totteridge Park Gardens, was first for one vase of Chrysanthemums.

TRADE EXHIBITS.

Messrs. Cannell and Sons, Swanley, showed a striking group of Cannabis and Kochia scoparia, the plume-like foliage being a rich crimson (silver-gilt medal); Messrs. T. S. Ware, Limited, Feltham, exhibited a splendid lot of tuberous Begonias and other hardy flowers (gold medal); Mr. H. J. Jones, Lewisham, made a grand display with Michaelmas Daisies and Chrysanthemums (gold medal); Mr. E. F. Such showed Chrysanthemums, &c. (gold medal); Hobbies, Limited, Dereham, exhibited Dahlias in great variety and excellence (gold medal); Messrs. Cheal and Sons, Crawley,

showed hardy fruits as well as hardy flowers in great variety (silver-gilt medal); Mr. H. Berwick, Sidmouth, displayed an excellent lot of hardy fruit (gold medal); Messrs. Peed and Sons, West Norwood, also showed hardy fruit (silver-gilt medal); Mr. David Russell, the Essex Nurseries, Brentwood, sent shrubs (silver medal); Mr. A. L. Gwillim, New Eltham, Kent, sent tuberous Begonia blooms (silver-gilt medal); and Messrs. Champion and Co., 115, City Road, E.C., showed their handsomely finished tubs for shrubs.

FLORAL COMMITTEE.

The meeting of the floral committee at the Crystal Palace on the 5th inst. was one of the best attended of its kind for a long time. Mr. D. B. Crane was in the chair. A splendid array of novelties was submitted on this occasion, several receiving the coveted honour. The more conspicuous blooms were:

Miss Mona Davis.—This is a very large spreading exhibition Japanese bloom, having broad, reflexing florets, indented and slightly curling at the ends. The colour may be described as rich creamy-white, with a deeper centre. First-class certificate to Mr. Norman Davis, Framfield, Sussex.

Mme. Lucie Dauvau.—The committee had this variety submitted to them as one suitable for market or cut flowers, and in making their award of a first-class certificate it was so regarded. The flowers are of the purest white, and such is borne on a long stout, erect footstalk. The florets are of medium width and slightly incurve. Also from Mr. Davis.

Arthur Du Cros.—In this large Japanese flower we have a typical exhibition bloom. The florets are of medium width, neatly arranged and pleasingly drooping, making a flower of deep build and beautiful form. Colour deep rose, slightly suffused white, with a silvery reverse. First-class certificate to Mr. F. Bullimore, The Gardens, Canon's Park, Edgware.

Viola.—Large, deeply built exhibition Japanese bloom, having broad florets, incurving, reflexing, and curling rather tightly. Colour tinted rose on a silvery white ground. First-class certificate to Mr. M. Silsbury, Provideoce, Shanklin, Isle of Wight.

Yimmie.—This is a pretty little early-flowering Japanese variety. A plant was submitted to the committee that had been partially disbudded, and the decorative value of the variety was quite apparent. The colour may be described as deep rich yellow, and the small reflexed-like blooms much resembled some of the larger hybrid Pompons. The plant was about 18 inches high. From Messrs. H. Cannell and Sons, Swanley. First-class certificate.

The committee wished to see again *Gothland Beauty.*—A large, rather flat flower, with medium florets; colour tinted and edged rose.

Sunshine.—A promising broad-petalled Japanese flower; colour orange-yellow, tinted and suffused crimson.

Mrs. Wm. Hubert.—Pretty decorative Japanese variety; colour deep flesh-pink with golden centre.

BOWDEN (ALTRINCHAM) AMATEUR HORTICULTURAL CLUB.

THE first autumn meeting of this recently-formed club of enthusiastic amateur gardeners was held in the Lecture Hall, Downs, Bowden Road, Altrincham, on Friday evening, the 30th ult., when a most interesting exhibition was got together. This embraced hardy flowers of all descriptions. The judging of the flowers is done in a most systematic manner by a scale of points. A recipient of full points gains a certificate of merit. This distinction fell to a lady; her display of flowers was set up with taste and skill, vases, bowls, &c., being used to exhibit the different flowers at their best. The members are encouraged to display their flowers artistically, and there were several instances in which this was most pronounced. Mr. D. B. Crane of Highgate, London, in the evening read a paper on "Early Outdoor Chrysanthemums." An appreciative audience listened for an hour and a half to the lecturer. Its culture was gone into very fully, so that the merest novice might, with a little careful thought, achieve success. Propagation by cuttings and division of old plants, treatment of young plants, summer treatment, preparation of beds and borders, staking and tying, aeration of the soil and watering, and many other points were dealt with in turn. The lecture concluded with a selection of twenty-five of the best Japanese and six of the most noteworthy Pompon sorts. Several questions were subsequently put to Mr. Crane, each of which was replied to. The president of the club (Mr. George Arthur Wright, F.R.C.S.), who occupied the chair, proposed a vote of thanks to the lecturer, which was enthusiastically carried. It was generally agreed that a most profitable and enjoyable meeting had characterised this first autumn gathering of the club. Mrs. Duggan, The Downs, Altrincham, Cheshire, is the honorary secretary.

EARLY-FLOWERING CHRYSANTHEMUMS AT TAMWORTH.

THE so-called Chrysanthemum "feast" at Tamworth is now regarded as an annual event. Through the enterprise of Mr. William Sydenham of Bolehall House, who provides the necessary prize money for the show and also bears all expenses, a pretty exhibition is got together and much useful information disseminated. Early varieties have been collected from all sources. This is the third year of the trial, and by a persistent weeding out of undesirable kinds and the proper naming of those retained, the plants are excellently arranged.

The collection is arranged in alphabetical order, and while this facilitates the inspection of the plants as a whole, the general effect is not so good as it might otherwise be. In the first place, the first series of plants under the letter A may not be more than 18 inches to 2 feet in height, while the second series under the same letter may be quite 4 feet high, and this fact is frequently to be seen, to the disadvantage of the smaller and dwarfer plants. Again, by this alphabetical arrangement the period of flowering is also much mixed up. The present season may be regarded as a late one.

From what could be seen of the majority, the plants will be better about the second week in October. By that period there should be a perfect blaze of colour. The Japanese sorts largely predominate, but among the Pompon sorts there are many interesting and beautiful plants. It is difficult to understand why more of the better Pompons are not used in the garden. It is as garden plants that Mr. Sydenham is endeavouring to get the early-flowering Chrysanthemums recognised, and if he can only induce the garden-loving public to plant a few specimens as a trial, he is convinced that they will go on with them. In this view many competent authorities are agreed. Visitors come from all parts to see the trial and visit the show, growers from the north, south, east, and west of the country participating in the treat.

The more noteworthy Japanese sorts in the trial deserve special mention, and Goacher's Crimson may well lead the van. This is a large flower of a rich deep crimson colour, with a golden bronze reverse to the florets. Mme. Casimir Perier, a creamy white tinted pink kind, is a most profuse bloomer, and as a branching plant excellent. Mrs. A. Willis is a beautiful sport from the last-named, the colour of which may be described as yellow, shaded and striped red. In habit it is identical with the parent plant. Rosie is a lovely rich warm terra-cotta flower, borne on stiff, erect stems on a splendid habit of growth. This is a most effective kind, contrasting splendidly with the yellow sorts. Carrie is a gloriously rich yellow flower, blossoming freely and persistently also. It is a dwarf plant, too. Norbert Pavrez, an old plant of excellent quality and indispensable, develops lovely golden-salmon flowers quite freely. Its habit of growth is ideal; it is very dwarf also. The Grunerwalde family was in superb form. These plants are represented by M. Gustave Grunerwalde, soft pink, tinted white; Henri Yvon, rosy salmon on yellow ground; Mrs. R. Mollinon, yellow and bronze; and Louis Lemaire, yellow, shaded bronzy orange. In each case the flowers are large. The plants are not very strong in their habit of growth, yet they are highly valued; height about 18 inches. White sorts were represented by Mychett White, Market White, Doris Peto, Roi des Blancs, Parisiana, Cranford White, White Grunerwalde, Satisfaction, Mrs. Squires, and others. Jimmie is a grand crimson-purple sort, having large and handsome flowers. Kitty, on a later series of buds, has flowers of the loveliest shade of pink, and the members of the Masse family were all in good condition. Pompons were grand, especially Mr. Selly (peach-pink) and its apicost sort Mrs. E. Stacey, also J. B. Duvoir, pink; Mme. E. Lefort, orange and red; Little Bob, rich chestnut, White Lady, blush; Piercy's Seedling, bronze; and a host of other sorts. The event of the trial may be considered in every sense a distinct success and a credit to the originator. D. B. CRANE.

BOTLEY AND SOUTH HANTS.

THE eleventh annual show of the above society was held in the Market Hall, Botley, on the 21st ult. Unlike in many societies, certificates of merit are given according to quality of the exhibits. The County Council also offers money prizes for collections of vegetables in six varieties, also prizes for the pupils from the Hants County Council plots. Mr. G. King, the instructor of the pupils, is to be congratulated on the produce shown, so keen and numerous were the exhibitors, and the quality was excellent. The association each year distributes Potatoes of recent introduction to the members, offering prizes for the best dish. The variety chosen this year was King Edward VII., and brought forth sixty-one dishes—a really grand sight and a show in itself.

Groups were arranged down the centre of the hall. Lady Jenkyns (gardener, Mr. W. Davey) gained the premier award, employing very graceful plants of Palms, Crotons (finely coloured), Lilliums, and other suitable plants, edged off with Panicum and Isoplepis. The most noteworthy plants in this exhibit were Eucharis amazonica, carrying fourteen spikes of bloom, and said to be grown in a cold house during summer. Mrs. Maltby (gardener, Mr. J. Matthews) followed with a tasteful arrangement. Carnations, Streptocarpus, and Begonias were very good in this exhibit.

A collection of fifty varieties of Asters was shown by Mr. W. Linney. This exhibit was greatly admired. Perry's Pink, Sensation, Triumph, and Amellus were very showy. A first-class certificate of merit was awarded.

For a huge bank of fruit and vegetables, half consisting of fruit and half vegetables, Mrs. Maltby gained the coveted award with high-class produce very well arranged, the fruit being particularly fine. The vegetables were equally good. Onion Ailsa Craig (very fine), Carrots Sutton's Favourite (very good) and Intermediate, Cauliflowers Autumn Giant and Purity, Potatoes Toogood's Tremendous, Windsor Castle, and King Edward VII. were the best, Beetroot Sutton's Green Top (splendid), Parsnips Tender and True and Intermediate, Runner Beans Best of All and Pizetaker, Tomatoes (good) Princess of Wales and Perfection, Cucumbers, Leeks, Marrows, Turnips, and Celery finishing off this meritorious exhibit. Lady Jenkyns came next with a very fine collection. Potatoes, Beetroot Toogood's Black (very fine), and Brussels Sprouts were the chief dishes. A. E. Woodrow, Esq. (gardener, Mr. C. Chappell), E. H. Liddell, Esq., Kitkocks (gardener, Mr. W. Livermore), and others contributed capital collections.

For the best collection of Pears Mrs. D. Clark, Brixedone, Bursledon, was easily first. The same exhibitor also showed a very fine lot of the Dartmouth Crab.

Botley is no less famous for Potatoes than it is for fruit. For a collection of twelve dishes Mrs. Maltby was first. For ten varieties Mr. W. Davey led. Amateurs contributed some very interesting exhibits. Mr. W. Waller staged very fine Ailsa Craig Onions, Potatoes, and Parsnips.

Prizes offered by the County Council for six varieties of vegetables brought six entries, the first prize going to Mr. W. King for a very good collection; Celery Southampton Red, Cauliflower Purity, Carrot Favourite, Onion Ailsa Craig, Parsnip Toogood's Marrow, and Potato Up-to-Date were included in this set. Mr. Frank Emery was second, having good Cauliflower, Celery, and Potatoes; third, Mr. C. King,

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[OCTOBER 22, 1904.]

WALL GARDENING.

ALTHOUGH we well know that many alpine plants thrive much better on the almost perpendicular surfaces of rugged walls than they do in any other spots, wall gardening may be said to be almost in its infancy—in this country, at any rate. Nature, if allowed full play, will teach us many things we do not know, and we have only to visit an old-fashioned garden, where things are left pretty much to themselves, to realise the truth of this. Old crumbling walls have many times been a source of the greatest pleasure to us, and we have seen pretty little alpines, that have almost baffled us to get established on the ordinary rockwork, quite at home on such places. Besides alpines, these old walls give room to other things. It is no unusual sight to see old walls beautifully draped with the graceful Ivy-leaved Toadflax, Pansies, &c., while the top is gay with common Wallflowers, many other Cruciferae, *Linaria purpurea*, and suchlike plants. We believe, indeed, that many hundreds of alpines may be grown in this way finer than in any other, and they will survive our damp winters much better than on the rockery, where a large percentage is probably lost through over-abundant moisture. The difficulty will be, of course, in getting them properly established, and the most satisfactory way is by sowing the seeds at the proper time, and keeping them moist until they germinate. On a wall such as we have indicated we have seen the Cheddar Pink flowering more freely than we have ever known it to do on the rockery, and the same may be said about many alpines, such as *Erinus alpinus*, most of the crusted Saxifrages, and notably *S. longifolia*, the alpine Toadflax, the silvery-leaved Potentillas, and nearly all the Stonecrops and Houseleeks. The Cobweb Houseleek (*Sempervivum arachnoideum*) is very handsome in these positions. We are not, however, nearly at the end of our list, as it includes many of the Campanulas, as *C. garganica hirsuta* and *C. veriscolor*, which grows in just such positions in sunny Italy. The Ligurian Hairbell (*C. isophylla* and *i. alba*) stands here, when it gets killed in the open border. It is one of the most profuse flowering species, and is not hurt by drought. *C. Raineri*, *fragilis*, and others are also suitable, and may be made quite at home. Almost all the Dianthuses of the plumarius type will be found suitable, the Androsaces, Drabas, Hypericums, Epilobiums, Convolvulus, Antirrhinums, and many other

equally handsome and desirable kinds. In many gardens walls have been built specially and properly for the reception of these plants, and where they have been made a part of the rockery, as we notice has been done at Kew, the convenience will be found very great. In building a wall as much care should be taken with regard to soil as there would be with a rock garden. Roots of many alpines travel a long way, and if the wall has been built against a bank of good soil the shady spots will be found most suitable for the various *Ramondias*, *Jankæa Heldreichii*, *Haberlea rhodopensis*, most of the choicer dwarf Ferns, alpine Speedwells, &c. Cacti, such as *Opuntia Rafinesquii*, *O. missouriensis*, and *O. humilis*, will form a very interesting group for a rock garden of this description. In places where the garden has been divided from the park by a sunk wall this with a little care may be made a highly interesting object. Indeed, all sunk walls where the sides may be built up of rough stones are capable of being made as beautiful and rich with alpine vegetation as a so-called rockery.

AUTUMN TINTS.

THE value in the park or garden of trees and shrubs, whose foliage fades in rich and glorious colouring, was opportunely emphasised by the exhibit from Captain Holford in the Royal Horticultural Hall last Tuesday. The beautiful tints of the Oaks, Acers, the Japanese Spindle Tree (*Euonymus alatus*), *Carya glabra*, and many others, of which cut branches were shown, bore eloquent testimony to their value in the garden landscape at this time of year.

There is a mystery about the autumn colouring of the foliage of hardy trees and shrubs in this country, and we have never yet ascertained with any degree of exactness the conditions that produce the richest and brightest colours. Probably the conditions most favourable generally are provided by a good growing season—that is, a warm, moist summer—followed by a dry, sunny autumn. But it frequently happens after what one would regard as favourable seasons, that species which are usually quite trustworthy in this matter fail to colour well. Probably one set of conditions does not suit all trees and shrubs in this respect. To produce the colouration of the leaf just before it falls certain subtle chemical changes in its composition take place. And to bring about these changes certain conditions in regard to sunlight, temperature, and moisture are necessary. But in a climate such as that of Britain, where the seasons are never alike two years together, we can never hope to obtain the same regu-

larity of autumnal colouring that characterises the vegetation, for instance, of the Eastern United States. Still, when all is said, we possess in our gardens a large number of trees and shrubs and climbers that are delightful in their autumnal livery of crimson, purple, scarlet, or gold. It is curious that every season we may notice species not usually conspicuous for their autumn tints beautifully coloured.

An over-vigorous, sappy growth, often the result of a wet, warm autumn, or too rich a soil, is certainly detrimental to autumn colouring. *Rhus cotinoides*, an American Sumach, worth growing for the beauty of its colours in autumn, is one of the most unfailing in this matter. But young plants, put out in well-trenched, heavily-manured soil, will often fail to colour at all till they get older and less vigorous. The most beautifully coloured examples of this Sumach that we have seen grow in rather light sandy soil. We have frequently noticed, too, that various species of Vine (*Vitis*) when starved in pots will colour exquisitely, whilst others, planted out in the ordinary way, completely fail. We believe, therefore, when planting with a view to the production of autumnal colour, any great enrichment of the soil is neither necessary nor advisable, provided it is of moderate quality to start with.

POTATOES TO EAT.

BY all accounts the National Potato Society seems to have had a most successful inaugural exhibition. At all events, a superabundance of large, handsome, and prolific tubers were on view, and the big Potatoes had every opportunity of mutual admiration and congratulation. There is, however, just one trifling deficiency in the exhibits and aims of the society, judging from its reports. It is nowhere stated that the intention is to produce edible Potatoes. By edible I mean suitable not only for the cattle yard, but, by way of concession, for the dinner table. I have read several reports of the late show with minute care, and, literally, the word *flavour* does not occur once. In one report of nearly 500 lines the only indication of the show being concerned with a human food product was a paragraph of five lines dismissing a class for cooked Potatoes without a word of comment on their quality. My own experience of the new and much-belauded varieties—the few which I have been foolish enough to encumber my garden with—is that each is inferior, if possible, to its predecessor. Up-to-Date, no longer of course a novelty, but filling field and market all over the country, is only fit for not very discriminating cattle. Sir John Llewelyn is rapid and tasteless, and it is impossible to understand how any private grower can waste ground over it while the Ashleaf kinds exist. Evergood

has never been good with me, and Northern Star is flavourless, does not resist disease, and is most annoying in its habit of super-tuberation.

A Lincolnshire grower, who has been concerned in the present Potato mania, admitted quite frankly, when I questioned him, that the consideration of flavour is not taken into account at all, that the dealers, indeed, in the Eldorados, &c., can obviously not afford to taste a single tuber, and that, for all they know, the taste and consistency may be like kitchen soap. The craze is a purely monetary gamble, and has as little to do with the quality of its material as a Stock Exchange gamble has to do with actual scrip and investment. We are really, in some respects, an extraordinarily stupid nation. Think of judging our fruits and vegetables, as we habitually do, by the eye and not by the mouth! A writer in *THE GARDEN* lately took great pains to apologise for the yellow colour of a certain Potato, and all the dealers' catalogues insist on the merit of whiteness of flesh. In point of fact all the really high flavoured Potatoes, beginning with the unapproachable Ashleaf, are yellow fleshed, and the whiter a Potato is the more it becomes a mere lump of tasteless starch.

In old days, when I was a good deal in France—I dare say we have perverted the French good sense by now—one never saw a white Potato put on the table, but always delicious yellow Potatoes, modest in size, of the Marjolain strain. I have one now, and have had it for over twenty years. We lift it before the Ashleaf, and it keeps until the end of the winter. I obtained it from the firm of Vilmorin-Andrieux. Longer ago than this a Guernsey friend sent me a basket of a small, roughly-shaped, red Potato, which was quite superb in flavour. This I lost by an accident in the vicissitudes of time. In my old countryside the cottagers grew some very ancient but most toothsome varieties. I particularly remember one called Norfolk Kidney, smooth and yellow. One may look in vain for such quality in the wonderful new show Potatoes. The decadence of the English vegetable began with the introduction of the American varieties, Early Rose, Beauty of Hebron, &c. These were all of the most wretchedly insipid quality, but took the market and the unthinking cottagers by reason of their productiveness.

Surely the aim of raisers should be the infusion of the Ashleaf quality into Potatoes which will crop well and keep through the year. The last production which to some extent fulfilled these conditions was *Magnum Bonum*, no later seedling that I have tasted has come near it in table quality. But it is sadly apparent that Potatoes are no longer raised with a view to their suitability to the saucepan, but, like the Jew's razors, are "made to sell."

G. H. ENGLEHEART.

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.

ROSE DOROTHY PERKINS.

From Bicton Mr. Mayne sends a few flowers of this delightful Rose, with the following note: "This is decidedly an acquisition among Roses. Its lovely bright pink flowers are borne in clusters, and are quite a feature in the garden even at this date, the middle of October. In fact, the plant is more full of bloom than it was earlier in the summer. We have it as a weeping standard, and it shows to great advantage in such a position. It should be a good variety for covering pergolas, sloping banks, trunks of trees, &c. It appears to do well in pots, as it has been shown in excellent condition at the Temple show towards the end of May. Cuttings of half-ripened wood inserted now under a west wall will stand a good chance of forming roots and be fit to transplant in twelve months. *Crimson Rambler* is carrying a good second crop of flowers, and the plants made excellent growth last summer. A great drawback to this variety is that it so soon mildews, and requires frequent syringing with an insecticide to keep it clean."

SWEET PEAS FROM A CUMBERLAND COTTAGE GARDEN.

Mr. Cuckney writes: "I am spending a few days in the Cumbrian Lake district, and sending you a few Sweet Pea flowers which I gathered yesterday in a cottager's garden. Generally speaking, in the south of England Sweet Peas have been long past. I know that they are by no means uncommon in the north-west of England, for I resided in this district nearly twenty years. My experience is that it is far easier to grow these and many other things in this equable climate than in Southern England, especially Kent, with its hot sun and scanty moisture, though Apples do not come into the category." A posy such as Mr. Cuckney, who is the well-known gardener at Cubham Hall, Gravesend, sends for our table is as welcome as the Roses of summer. The flowers were fresh and fragrant, and fortunate are those who can keep this winsome annual far into autumn.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 25.—Croydon Chrysanthemum Society's Show (two days).

October 27.—Exmouth Chrysanthemum Show.

November 1.—Bournemouth Chrysanthemum Show (two days); Brighton Chrysanthemum Show (two days); Royal Horticultural Society.

November 2.—National Chrysanthemum Society's Show at Crystal Palace (three days); Southampton Royal Horticultural Society's Show (two days); Highgate Chrysanthemum Show (three days); Lowestoft Chrysanthemum Show (two days); Portsmouth Chrysanthemum Show (three days).

November 3.—Weybridge Chrysanthemum Show; Colchester Chrysanthemum Show; Forest Gate Chrysanthemum Show (three days).

November 4.—Windsor and Eton Chrysanthemum Show; Battersea, Clapham, and Wandsworth Chrysanthemum Show (two days); Hinckley Chrysanthemum Show (two days).

November 5.—Batley and District Chrysanthemum Show; Loughborough Chrysanthemum Show; Penarth Chrysanthemum Show; North Lonsdale Chrysanthemum Show.

November 8.—Ipswich and East of England Horticultural Society's Show at Ipswich (two days); Dulwich Chrysanthemum Show (two days); Sevenoaks Chrysanthemum Show (two days).

November 9.—Buxton Chrysanthemum Show; Southend Chrysanthemum Show (two days); Stoke Newington Chrysanthemum Show (two days).

November 16.—Liverpool Horticultural Association Chrysanthemum and Fruit Show (two days).

November 17 and 18.—Grimsby Chrysanthemum and Fruit Society.

Royal Horticultural Society.—A general meeting of the Fellows was held on Tuesday last, when Dr. Maxwell Masters, F.R.S., occupied

the chair. Seventy-six new Fellows were elected, which makes a total of 1,236 fresh subscribers since January 1, 1904. Those elected included Lord Ernest S. Maur, Lady Montagu Bargoine, the Hon. Mrs. Bathurst, the Hon. Mrs. Brodrick, Sir Herbert Maxwell, Bart., Mrs. J. W. Lowther, Mrs. Ian Malcolm, Major A. B. Mayne, and Colonel H. D. Rooke. In introducing the Rev. Professor George Henslow, who had kindly consented to deliver a lecture on "Geographical Botany as a Result of Adaptation," Dr. Masters mentioned that the society were under a fresh obligation to the lecturer, who had just made valuable presents of books for the Lindley Library and for the Students' Library at the Wisley Gardens, and he hoped that many Fellows and others would follow Professor Henslow's example and present books to the library which, in the new building, would have more than double the space available. If each would thus do his share, the gaps and omissions in the library would soon be made good. In the course of his remarks, Professor Henslow referred to the prevailing habit of classifying plants "Tropical," "Asiatic," and other classes, whereas the same plants were frequently met with in different parts of the world, and varying localities and nature so changed their characteristics that those not learned in botany were wont to regard them as distinct species. He further showed the various metamorphoses which many plants experienced in such changed conditions as regards climate, exposed situation, altitude, soil, and the like. The lecture was very fully illustrated by a magnificent series of lantern slides, and by water-colour and other illustrations, all specially made for this lecture, and these served to enforce and prove each point dwelt upon by the Professor.

The Succulent house at Kew.—This is open again to the public after having been rebuilt. The collection is of great interest, and in the new quarters visitors anxious to study the plants are provided with greater facilities.

The Hon. Frances Wolseley's Garden School.—The Hon. Frances Wolseley writes from the Farm House, Glynde, Sussex, a letter describing the new garden school that has been recently established there: "The pupil receives practical instruction from the lady gardener in the following branches of flower gardening (no vegetables), with a view to her being able to undertake gardening as a profession. She will be taught the every day work of a garden, rolling, mowing, sweeping, and tidiness. Digging and manuring, seed sowing, planting and growing herbaceous plants, pruning Roses and fruit trees, laying out gardens, arranging flower borders, &c. She will be taught the management of greenhouse plants, watering and ventilation, forcing bulbs and plants for winter flowering, forcing Violets in cold frames, hotbeds, &c. The pupil can also learn flower market gardening for profit. She will be taught forethought, and in due course given a certain amount of responsibility, which will fit her eventually to manage a garden without help. The course of work is shortened or prolonged according to future requirements of the pupils, but should not be less than a year in order to obtain the experience derived from change of seasons. Half holiday once a week according to arrangement. Hours of work, as arranged by lady gardener, to be punctually observed by the pupil. The pupil pays a small entrance fee of £10 for one year, and £15 if she stays two years. It is paid in advance, and this fee will not be refunded unless the pupil leaves by Lady Wolseley's desire. In this case her money will be returned according to the length of time she has received instruction. The pupil is allowed one week's trial before paying entrance fee. She defrays all her own expenses for board and lodging. Lodgings can be obtained in the neighbourhood. Apply, Hon. F. Wolseley, Farm House, Glynde, near Lewes, Sussex." The head gardener is Miss Verrall, Gold Medallist of the Royal Horticultural Society, and preference in the choice of pupils is given to the daughters of professional men who intend to make gardening a profession; there are at present three vacancies in a comfortable cottage.

Phlox Helen Vacaresco.—Those who are in want of a good pure white-flowered herbaceous Phlox should grow the above. In height it reaches 2 feet, produces an immense panicle of pure white shapely flowers, and has deep green abundant leafage.—E. M.

Phlox Virgo Marie.—While we are all anxious to collect varieties of the herbaceous Phlox with extremely large blooms we are apt to pass over varieties most desirable in other respects. For instance, this older form is one of the finest late-flowered ones I know, giving huge panicles of pure white flowers long after the bulk of other sorts are over. It grows 4 feet high.—E. M.

Rudbeckia pinnata.—Among cone flowers this is a desirable variety seldom seen in an ordinary garden, but which in the middle of October is of much value. The plant grows 5 feet in height, and has deeply cut foliage. The flowers are produced on stiff erect stems, and are about 3 inches in diameter. The petals are 2 inches long and three-quarters of an inch wide, and droop quite close to the stems. The colour is pleasing, a deep lemon.—E. M.

Rudbeckia fulgida.—This cone flower appears to be little known to the ordinary cultivator, yet it is a most valuable sort, giving quantities of flower in October when the borders are getting dull. In height it grows from 5 feet to 6 feet, according to circumstances. The flowers are 2 inches in diameter, the ten petals are half an inch wide, overlapping each other, making a shapely flower of a deep yellow colour with a particularly dark disc. The habit of growth is erect, yet much branching. It is thoroughly hardy, and in every respect desirable.—E. M.

The Flame Flower.—It would be unfortunate if those who have not tried to establish that most brilliant of all hardy climbers, *Tropaeolum speciosum*, in England, were deterred because the late Dean Hole many years since professed his inability to get it to grow. It is possible that at a later date he met with success. In any case, there are to be found in England plenty of instances where the Flame Flower has become thoroughly established and does admirably. I have seen it thriving equally well on both warm and cold aspects. Several years since I saw it on a south aspect at Frensham Hall, Haslemere, growing so freely as to be in danger of becoming a weed. Mr. H. J. Veitch has it on a north aspect at East Burnham Park, Bucks; it flowers gloriously there in July. But it is found in all sorts of places and under diverse conditions. Let all who have gardens try to establish it.—A. D.

Southern seedling Potatoes.—That there is just now a rage for novelties in Potatoes there can be no doubt, and in certain directions that rage has been excited into a mania. Manias, however, are seldom of long duration, and usually are succeeded by periods of sanity and slump. But the raising of seedling Potatoes will still go on, as it has gone on quietly for the past forty years; it has been most effective in stemming the tide of disease which devastated our old varieties in years past. Messrs. Sutton and Sons of Reading have long been raisers of new varieties, and this year they have just lifted some 500 seedlings. From out of them fully fifty have been found to show high promise as croppers and disease resisters. It is doubtful whether seedlings anywhere excel these fine novelties. Many others of the batch would ten years ago have been regarded as wonders.—A. D.

Clematis montana var. rubens.—In the nursery of Messrs. James Veitch, Limited, at Coombe Wood I had the pleasure a few weeks ago of seeing a few blooms open on this plant, which is one of Messrs. Veitch's novelties, and although it was quite out of season, enough could be seen of it to form an opinion of its merits. In general appearance it is much like *C. montana*, but is darker coloured, the branches and leaf-stalks having a reddish tinge. The flowers, which are as large as the best-sized flowers of the type, are reddish or deep rose in colour, and will form a fine contrast to the ordinary white. Judging from the way it grows at Coombe Wood, it will be quite as easy to cultivate as *C. montana*, and from the

appearance of the wood it will be as free flowering. *C. montana* var. *rubens* was sent home by Messrs. Veitch's collector from the mountainous regions of Central China.—W. DALLIMORE.

Lotus pellioryhncus as a bedding plant.—A very attractive bed in Hyde Park is one filled with this plant. The slender shoots of grey-green leaves have trailed all over the bed and have quite covered the soil. Even now (October 10) it is very effective. As a foliage plant of quiet colouring, or as a suitable ground colour for brighter flowers, it seems especially suitable. As a flowering plant, of course, it is not of value for summer bedding. I have never before seen it grown for its foliage alone.—Y. Z.

Helianthus decapetalus.—Now there are so many forms of deep yellow, almost orange-coloured Sunflowers, it is pleasant to have a few plants of a lemon-yellow shade. Even for the attractive and uncommon colouring of the flowers this plant is worth growing. It is of easy culture and flowers freely, so that it can be confidently recommended. A group of it towards the back of the herbaceous border adds considerably to the beauty of the latter, and relieves the monotony of rich yellow so common among autumn flowers.—Y. Z.

Fritillaria aurea.—This is an Asia Minor plant, and one of the most fascinating of all



FRITILLARIA AUREA IN THE ALPINE HOUSE AT KEW.

Fritillarias. It grows but a few inches high, and bears a solitary, pendulous, balloon-shaped flower from 1 inch to 2 inches across, golden-yellow in colour, faintly netted on both surfaces with maroon tracery, but more heavily flecked maroon on the outside. The outer base of the flower is also flushed with the same colour. The bulbs are scarcely larger than a good-sized Pea, but they are wonderfully tenacious of life. This plant is seen to the best advantage when planted in breadths on gentle slopes or raised borders, sowing the bulbs broadcast as one would do Peas. The plant is very hardy, and the bulbs should not be lifted to store. They attain much greater size and flower in greater profusion when allowed to remain in the ground. It is also admirably adapted for pot culture, as may be seen from the illustration.—G. B. MALLETT.

The Celery maggot.—Never, I think, do I remember a season when Celery generally has suffered so much through attacks of the leaf-mining maggot; in many places the tops are little else but masses of browned leaves. It is well known, of course, that a fly originates the maggot which does the mischief, and the former must have been very plentiful this year. The worst of this pest is that

it has several broods in a season, and Celery is liable to be affected from the early summer till late in the autumn, though generally it is at the latter season that the most damage is done. There appears to be no magic way of dealing with the Celery maggot, and the old remedies of dusting the tops with soot or syringing them with soapsuds and quassia to make them distasteful to the fly appear to be the only means of checking it. As gardeners are always anxious to learn I should like to know whether any readers of *THE GARDEN* have a more efficacious way of dealing with Celery maggot.—G. H. H.

Hidalgoa Wercklei.—This climbing plant with Dahlia-like flowers has been spoken of as a very free-growing, profusely-blooming cool house climber, but that would not be my description of it. It grows freely enough; in fact, too soon becomes a dense thicket, but the flowers are very few and far between. It has a position within 2 feet of the glass roof, where, with proper attention to thinning and regulating the many thread-like shoots, it ought to flower much better than it does. When growing it requires almost daily attention, as the tendrils lay hold everywhere, hence, if neglected, a tangled mass is the result. It is often attacked by aphid under glass, worse even than *Solanum jasminoides*. It should only be planted where the structure can be frequently fumigated, and this prevents its being grown in conservatories adjoining the house. Perhaps some growers will give readers their experience of this plant as to its behaviour under glass.—J. MAYNE, Bicton.

SUGGESTIONS FOR THE GROUPING OF BULBS.

(Continued from page 254.)

OF course this system may be the only one we have to consider, or it may be only a part of a much larger "astronomical" scheme involving the planting of other kinds of bulbs in the adjoining grass. In the first case, there is only the allotted space to be covered with the best arrangement we can evolve, but if we have to go on extending our work a far greater amount of care and discrimination will be necessary. Are we to keep the different sorts separate, each in its own province, divided by wide intervals from its neighbours, or to mix them together more or less, or to allow them to blend gradually with, and overlap, each other? Probably we should decide on the last of the three plans, and I shall assume that it is so. The effective and natural blending of, say, Snowdrops with Cyclamens and Cyclamens with Narcissi (I am using these three kinds simply for the sake of illustration) may be rightly termed an art, though "the art itself is Nature"; it is so easy to overdo the thing, so hard to do enough to create a perfect harmony in the grouping and to carry the eye without effort from one system to the other. Let us assume that we have to deal with these three flowers then. We must be careful to plant some Snowdrops within the borders of the Cyclamen region, and some Cyclamens in the territory of the Snowdrop. Similarly, we must have a few Narcissi with the Cyclamens, and *vice versa*. And these "bondstones" must not be confined to a few scattered monotonous singles on or near the boundary; there should be also an occasional group of several bulbs, and at rarer intervals a good-sized patch or clump of the one sort, intruding (perhaps a considerable distance) upon, and dove-tailing into, the others.

As already suggested, the various bulbs employed in such a plan should be treated with equal consideration as part of the whole, and the outlines of each group should be more or

less indicated before planting is commenced. The whole site will be an intricate forest of sticks or labels for a time, and visiting friends may perhaps make merry at our expense, but no matter! A thing well thought out is already half done, and we shall have reason to bless this same forest when we actually get to work, in spite of its involved and unsightly appearance.

Where there are trees, or shrubs, or permanent beds on the grass to be planted, it becomes somewhat easier to carry out our scheme, for the roots of the trees, or the undulations of the turf in their vicinity, the outlines of the shrubs and beds, give us something to start with, so that, with half-closed eyes and heads knowingly a little on one side, we are able to dip into futurity and form a notion of "what it will look like when in flower."

If the tree roots are large and well defined so much the better, and better still if they project boldly above the turf for a portion or portions of their length, for they at once indicate to us a line or directing axis for a constellation and its satellites. Can anything be more beautiful than a graceful setting of Snowdrops or Cyclamens around and along these roots, especially if they be gnarled and knotty and moss-grown, as we find them under Beech and Birch trees? Such roots within our garden precincts cry aloud for bulbs, for Scillas and Chionodoxas for Fritillaries and Snowdrops. But we must be just as careful, though happy in the possession of suitable trees and shrubs, to dispose our bulbs in a graceful and natural manner, as if we were planting an open, unoccupied piece of ground. There must be the right amount of nebulae, of constellations, and of single stars, and each system must blend, not clash, with the others. Even if we have only half-a-dozen of each kind of bulb it is possible, nay, imperative, to construct a natural group with these, a miniature universe of beauty. The two exquisite illustrations in Robinson's "English Flower Garden" of the Poet's Narcissus at Belmont, and Snowdrops at Straffan, should be carefully studied by all bulb planters before commencing work.

The above remarks will apply equally to any contemplated planting of bulbs on an extended scale in the rockery or bed; anywhere, perhaps, but in the formal long border. We must aim at the same grace and elegance as on the grass, and our colours must not have too harsh a dividing line. Take, for instance, a bank sloping from the rocky ledges above to a level space extending as far as the turf or path adjoining the rockery. We want a mass of bulbs here—Scillas and Daffodils, and, perhaps, Anemones and bulbous Irises. How are we to plant them? On the same system as that already sketched out, I venture to say, though we need not keep the various species quite so distinct and separate in this case. We should have our "nuclei" of each, and its ramifications and "out-liers," but we may mix our sorts with greater freedom and irregularity I think. We must not, that is to say, put all our Daffodils and Iris on the low ground, and all the others higher up, or *vice versa*; each kind should seem to have its headquarters when we look at them all in a mass, and there should be larger and smaller gatherings of each here and there among the scattered single bulbs; and if we employ the white form of a coloured flower let us be careful not to dot and group it too thickly among the type. One or two single white Scillas, for instance, and a solitary clump (not the circular one already alluded to) of the same, among the blue ones,

will add to the beauty of both forms, and of the planting as a whole.

I have tried, as far as possible, to "generalise" in these remarks, and have carefully abstained from any recommendations as to the most desirable and suitable bulbs to plant, for their name is legion, and all are beautiful and worth growing on grass or in the border and rockery. This is essentially a matter of individual taste and selection; nor have I gone into the question of the times of flowering of the bulbs to be planted, though this, of course, is a matter worthy of the most serious consideration if we are preparing for a delightful simultaneous display of flowers in our corner, and this is most probably what we have in our mind all the time.

We must choose those bulbs whose period of blooming in ordinary seasons most nearly coincides, plant them, and hope for the best. So much detailed information on this subject is now available in gardening books and notes that we can hardly go wrong. One caution I may be allowed to give, and that is, "Do not expect a successful and simultaneous result from the ordinary spring Crocuses, the yellow, white, and purple kinds." They may bloom all together the first season, but in after years there will be sad blanks at all times throughout the flowering season, at least that is my own experience.

One more suggestion and I have done. It is a most welcome fact that in order to remedy any shortcomings or mistakes in our planting of bulbs (at any rate, of nearly all of them), we can at any time after they have appeared above the surface of the ground, even when they are in full flower, lift carefully, and move them from one place to another without much risk of loss. So that we can gradually improve upon our system in the early spring-time, alter and shift our groups and "out-liers" about, till we can think of nothing more that can possibly be done to perfect our handiwork; then we can lay down our trowel, take off our gloves, give a sigh of content, and go indoors to tea.

S. G. REID.

COLOUR IN THE MIXED BORDER.—III.

I AM now going to treat of the latest phase—herbaceous border gardening. I allude to the scheme of planting out the ground in different sections of one decided colour or shades of one colour. I must tell you that this idea is extremely difficult to carry out effectively and practically for many reasons, and there is no doubt it will increase considerably the labour and cares of gardening. Still, everything that adds to the interest of the most charming and entralling of all occupations is well worth trying, and as this new departure appears to have met with much approval in the world of amateur gardeners it must be dealt with carefully and exhaustively. First of all, it seems to me that some technical knowledge of colours and their relative values would not only be useful as a means towards success, but absolutely necessary. I have seen one or two borders planted with no consideration of this important matter, and the result was far from satisfactory. Now the fact that we have a great quantity of flowers at our disposal, and that these are of many varying colours and tints, adds to our difficulty.

Let us suppose that our border is ready for our operations, and that the time has arrived to begin the arrangement of the plants. We will say that the border is 60 feet long and

6 feet or 7 feet wide. We must now decide on the extent of each section and divide the ground accordingly, marking out the division line with a spade; then, having done this, we must make some kind of colour plan. The simple or primary colours, as every school child knows, are blue, red or scarlet, and yellow. The secondary, or compound colours, are purple, composed of blue and red; orange, composed of red and yellow; and green, composed of blue and yellow. So the colours you will have to work with are blue, red or scarlet, yellow, purple, or mauve; you have also another compound colour—pink, and that is the most intractable colour of all, and is not supposed by science to be in true harmony with any other colour. But surely it is not a discord with blue; indeed, it is used by Nature constantly in exquisite combinations, and who can look at Apple blossoms against the blue of an April sky and not think it a perfect harmony? Of course, you do not reckon green, but you have white, which with black is called an extreme colour.

It is a good plan to take your paint-box and work out for yourself a little drawing of your border. One of the best gardeners I have ever known had a plan made of her garden, and in the spring she used to fill in the design with the colours she intended to use—for those were the days of the geometrical flower garden. Meantime, however, I will make some suggestions which you can take for what they are worth. When the primary colours—blue, red, and yellow—are combined they make a perfect harmony, but remember that if blue and red are placed next to each other the red must be scarlet. A splendid effect, for instance, may be obtained by planting a large group of Delphinium next to the scarlet Oriental Poppy; but if, on the contrary, yellow comes in between, crimson Poppies may be used. We will take blue first, for it is the colour that harmonises best with every other. Next to No. 1, the blue, we will place No. 2, scarlet; then 3, yellow; 4, purple; 5, white; 6, pink; 7, blue; 8, orange; 9, mauve; 10, white; 11, blue; 12, red, and so on.

Although blue is so harmonious that its use is most desirable in the colour scheme, blue flowers are, unfortunately, not plentiful, so we must collect all we can of every shade, arranging them so as to mix pleasingly and avoid a patchy effect, and, above all, keeping out all purple or lilac tones. This we can do by adhering to sky blue, sapphire, and indigo tones. In my present article I am not taking into consideration the background, which is bound to be different in every case. Hedge, wall, or paling may be there already, or possibly the border may be cut out of a grass terrace, and the background may have to be formed by the plants used in the bedding out. You cannot do wrong for your tallest plants to start with groups of Delphinium, choosing, as I said before, the true blue varieties; any good florist will sell you those true to colour. The hybrid Monkshood (*Aconitum Napellus*) is useful and effective, and blooms earlier than the Delphiniums; but some people are afraid of admitting so baneful a plant into their gardens, and it also has the demerit of over fertility and of being extremely unsightly in its decay. These plants I mention will all be out of flower by the end of July or earlier, but if you immediately cut down the Delphiniums they will bloom again in the autumn. Then there is one very good variety of the old-fashioned Columbine, a deep self blue, and several blue and white ones which may be admitted with *Columbina celestis* in a group and Jacob's Ladder (*Polemonium caeruleum*).

The blue annual and perennial Lupins can be placed close together for successions; the perennials will be out of flower by the end of June. There is a species of Borage Wort I found in a cottage garden which is charming, flowering continuously throughout the whole of the summer. It ought to be of great value in a border, but I do not think it is generally known; and I confess to admitting, under restrictions, its relative of the herb garden. Next plant some of the Veronicas, keeping the dwarf varieties for the front, with *Anchusa italica*, which is an early and constant bloomer. Have plenty of annual Larkspurs, Sutton's stock flowered blue, I think is the best, and will give you a wealth of bloom from May to the end of September; and I should sow Cornflowers among the other plants, for they want the support they find among the Corn, and *Nigella*, and two sorts of Forget-me-nots—the tall Perfection and quite dwarf Star of Love—and if your border is moist enough to grow *palustris* you may gather Forget-me-nots until late in the autumn. You can have fine groups of blue English Iris and the Spanish King of the Blues.

Close to the edge you must have Squills, the pretty *Chionodoxa*, Glory of the Snow, *Violas* in shades, and just behind them blue Hyacinths, and do try to establish the beautiful *Gentiana acaulis*, now too little grown. A hundred years

ago there never was an English flower garden without it. If you will go and see a great border of it with its thousands of green-throated sapphire bells and compact vivid green foliage flourishing in the gardens at Wisley next May, you will never rest content until you have made an effort to obtain it for your blue section. But, alas! it is like so many great beauties—very capricious. The *Campanula* tribe may be enlisted to help you in a later summer, and the blue Flax, and for the front of the border you can have a lovely Californian annual (*Phacelia campanularia*). This must be grown in boxes, and planted out when strong enough to find for itself, for the slugs devour it greedily in its infancy. The *Nemophila insignis*, too, should be sown in the previous autumn. The *Salvia patens* will come in well for the autumn, the dullest time of all, for the blue flowers seem to depart with the summer skies. These things should all be well mixed together, and planted with no niggard hand, to ensure as much as possible an effect of blue over all. You will find Ribbon Grass and variegated Maize a charming and æsthetic addition to your section, the white and green harmonising so perfectly with the soft colouring.

I am sure much more use might be made of foliage plants and grasses in this kind of gardening. Now we come to scarlet. We

must keep to the true tint, for we want the red flowers for section No. 12. What could be more effective than a fine group of *Kniphofia Matador*, if it is a real scarlet, as I believe it to be. Then we have the Oriental Poppies, which will be in full bloom in June, followed closely by *Lychnis chalconica*. The scarlet Martagon Lilies are due at midsummer, with *Monarda didyma*, planted reservedly, and *Delphinium nudicaule* generously. Scarlet Queen *Salvias* and *Geum coccineum plenum* will bloom from summer into autumn, and you will have plenty of *Gladiolus Brenchleyensis*, and the handsome *Physalis Franchetti* to keep them company into the late autumn. Then we have a host of smaller things, chiefly for spring blossoming. First the beautiful Turban *Ranunculus*, the most intensely scarlet of all flowers. These require care, and must never be allowed to suffer from drought; double and single Anemones, and the *Anemone fulgens*, which blooms very early; and *Cramoisie Tulips* and scarlet Parrots. There will be a pause, I am

afraid, after these go out of bloom before the Oriental Poppies open, but if you sow quite early a pinch of Sutton's Cardinal Poppy in patches among the other plants, thinning out severely, you will probably have these in flower first. The scarlet *Nasturtium*, a dwarf variety, is of great value, and its foliage is so pretty. Plant, too, some good clumps of Carnations; you will not beat Grenadin, though it has many rivals, for it is so hardy, and such a free flowerer. There is a really scarlet *Verbena* to be had, but I forget the name. Scarlet annuals are scarce, but if you sow the charming *Cacalia coccinea*, or Tassel flower, and if you have any spare spaces or failures you can always fill in with the time-honoured scarlet *Geranium*, though the mind of the modern florist is filled with an unreasoning prejudice against this method of plenishing.

AUGUSTA DE LACY LACY.

THE INDOOR GARDEN.

MALMAISON CARNATION CULTURE.

SHOWN in the accompanying illustration is a house of Malmaison Princess of Wales, a beautiful deep pink, probably the best in cultivation for general purposes. When I took charge of these gardens, in April, 1902, there were seven old plants of this variety, and being well acquainted with Malmaisons, I knew the value of this beautiful sort. As I had to grow them for market as well as for private use, I advised that nothing else but Princess of Wales should be grown. In August, after the flowers were cut, I disposed of all the other varieties, and kept the seven plants of Princess of Wales, which I layered on August 21 in a cool frame. They were watered and kept shaded and close for a few days. Air was then gradually admitted, and was always given night and day. They were sprayed about midday with a fine spraying Abol syringe. On September 27 I found them to be nicely rooted. I then severed them from the old plants with a sharp knife. On October 10 they were potted into 4-inch and 5-inch pots. After potting, they were placed upon coarse ashes near the glass in a cool frame, and again kept close for a few days. Air was afterwards gradually admitted, eventually leaving it on night and day. At the end of October they were removed to the Malmaison house, and placed upon the side stages covered with shell-gravel. Water was given with great care, rain water being used; air was given freely both by the top and side ventilators. The house temperature was never allowed to exceed 55° at night. However sharp the weather was, I always had a little air on the top and sides, with the heating pipes just warm so as to dispel superfluous moisture.

In February, 1903, when active growth began, they were potted into flowering pots of 6 inches or 7 inches in diameter. They were potted carefully and firmly, using three parts good fibrous loam, one part leaf-soil, wood ashes, charcoal, with plenty of sharp sea-sand, old mortar rubble, soot, and crushed bones. Some half-inch bones and a few pieces of charcoal were placed over the corks. The plants were then neatly staked, given plenty of room, and placed on the centre stage. Water was given with care. By the middle of April they had rooted through the new soil. I then began feeding gradually with Clay's Fertilizer, giving a small teaspoonful to a 7-inch pot, and rather less to a 6-inch. This I used to apply every fortnight by sprinkling over the surface of the soil, not mixing it with the water, as most people advise, at the rate of an ounce to the gallon of water. If mixed with water and applied in this way it passes through the soil and drainage, and the roots benefit very little, especially if the plants are very dry when it is given. I used to water with weak soot-water alternately, as this helps to keep the plants in good colour.



MALMAISON CARNATION PRINCESS OF WALES IN THE GARDENS, REDLANDS, BROADSTAIRS, KENT.

As the pots became full of roots feeding was made rather stronger, especially when they were making flowering growth in May and June. As soon as they showed colour Clay's Fertilizer was withheld, and only weak soot-water given once a week. Disbudding was well attended to, and each growth allowed to take one flower. Good long stems for cutting were thus obtained, carrying grand, well-developed blooms, the majority of them measuring 6 inches across; some measured 7 inches across. After the blooms were cut the plants were again repotted. On September 23 they were transferred from 6-inch and 7-inch pots into 8-inch and 9-inch pots, being given the same compost as before. They were then well staked out and given plenty of room, so that light and air could reach them. In February of this year they received their final potting into 10-inch and 12-inch pots. They were then given precisely the same treatment as the previous season. This year I began cutting on June 22 and finished September 2. From the house shown I cut more than 100 dozen, and the morning before the photograph was taken (July 1) I cut six dozen. I never grow plants more than two years.

GEORGE WEST.

The Gardens, Redlands, Broadstairs.

BULBS FOR THE GREENHOUSE.

(Continued from page 258.)

DAFFODILS.—These will not bear hard frociog, yet at the same time a great many of them can be brought on under glass, and in this way anticipate their usual season by some time. It is necessary to put from three to five bulbs in a pot to form an effective display. These may be treated as recommended for the Hyacinths, and when taken under glass a cold frame is at first the best place for them. While the majority lend themselves to this treatment, especial mention may be made of Ard-Right, Emperor, Empress, Countess of Annesley, obvalaris, Telamonius, Telamonius flore-plena, princeps, pallidus præcox, Golden Spur, and Horsfieldi, while the large flowers of the double forms of incomparabilis are very showy when at their best.

CROCUS, CHIONODOXAS, MUSCARI, and SNOWDROPS are all available for growing under glass, and afford a pleasing variety. They, as well as the different Narcissi, need rather more loam in the soil than Hyacinths, otherwise their treatment is much the same. Pots 5 inches in diameter are very useful, and the number of bulbs in each will depend upon their size, for in the case of such small ones as the Chionodoxas a dozen is not too many. All these should be potted before the end of October, and after making roots out of doors should be taken under glass. The Snowdrop is, as might be supposed, the most impatient of fire-heat, but with care this will flower well in pots, and that, too, before those out of doors.

LILIUMS.—The various Liliams differ from any of the plants mentioned, in the bulb being composed of scales more or less loosely arranged, hence they suffer from exposure much more quickly than the firm bulbs of Hyacinths, Tulips, Narcissi, and such things. This being the case, it follows that they should be potted as soon as possible after receipt. Of the different Lilies usually grown in pots for greenhouse decoration we get *L. longiflorum Harrisii* from Bermuda about the middle of August, *L. longiflorum* and varieties from Japan in October and November, and *L. auratum* and *L. speciosum* both represented by several varieties in December and January. They should be potted on receipt and placed in a cool structure, just giving enough water to keep the soil slightly moist till growth recommences, when an increased supply is necessary. Of the others previously mentioned *L. Harrisii* may be treated in the same way, while the Japanese *L. longiflorum*, *L. auratum*, and *L. speciosum*, after potting, should be placed in a cold frame till it is necessary to take them into the greenhouse. In all stages of growth *L. longiflorum* is particularly liable to be attacked by

aphides or green fly, which may be readily kept in check by vaporising.

THE TUBEROSE (*Polygonatum tuberosum*) is another bulb of which we receive our supplies entirely from abroad, chiefly from America and South Africa. From the last-named district the bulbs usually reach here in October, while the American ones do not come till December. These do best if potted firmly in good loamy soil and grown in a fairly humid atmosphere. They may be kept out of the ground for a couple of months without injury, and if potted in batches at intervals of two or three weeks a succession may be kept up for some time.

FREESIAS.—Despite the fact that Freesia bulbs will, with reasonable attention, perfect their growth and flower well year after year in this country, immense numbers are imported every season, principally from the Channel Islands and the south of France. The major portion consists of the white-flowered form known generally as *F. refracta alba*, but which, as pointed out by Mr. Gumbleton some time since in *THE GARDEN*, has no connexion whatever with *F. refracta*, which is a poor garden plant and quite scentless. The true name of the popular kind is *Freesia alba*. The bulbs of this reach here about the end of July, and should be potted before the end of August. A very convenient way of growing Freesias is to put about eight bulbs in a pot 5 inches in diameter in a compost made up of good yellow loam, dried cow manure, and silver sand. During the growing period the plants should be in a light position in the greenhouse, while a free circulation of air is very necessary. Besides the above there are numerous other bulbous plants grown to a greater or lesser extent for the embellishment of the greenhouse, and of them the *Babianas*, *Ixias*, and *Sparaxis* may be treated in much the same way as the Freesias. Beside these there are what may be regarded as permanent greenhouse plants, that is to say they may be grown and flowered year after year without difficulty. This class includes the following: *Crinum*, *Cyrtanthus*, *Hæmanthus*, *Hippeastrum*, *Lachenalia*, *Nerine*, *Urceolina aurea*, *Vallota purpurea*, and some of the *Watsonias*.

H. P.

THE FLOWER GARDEN.

WILD GARDENING IN SPRING.

AS this is the first paper of this description I have ever written or read, I must ask for your kind indulgence this evening. I have tried my best to make it both practical and interesting, and am hopeful it may prove, to some at least, a little instructive as well. I have thought it better to confine myself almost entirely to the naturalisation of spring flowers in grass, and to give my personal experience in a small way, extending over a period of some ten or twelve years.

I believe no other class of gardening offers so many varying opportunities to obtain results so fascinating and calculated to give lasting pleasure. It seems to me to give a maximum of satisfaction for a minimum of trouble and expense. With a little forethought and a judicious selection of bulbs, one may, by the expenditure of a few pounds, have an extensive and charming show from early in February to the approach of June. I know of no more agreeable occupation in the garden, at any season of the year, than that of arranging and planting bulbs on a fine day in autumn.

Another great advantage of flowers grown in this way is that they have a special charm of their own. My experience is that no matter how beautiful the later blooms of summer and autumn may be, they do not seem to be so keenly appreciated as are the early flowers of spring, when grown in the grass.

As regards the finding of suitable places and positions, it has often struck me that it would well repay many otherwise keen gardeners to thin out some of their more ugly shrubberies, and

instead of keeping up acres of troublesome and expensive lawns to give up a good portion of the available ground to this class of gardening. If they once did so they would never regret the change I feel confident, and it would prove to be an ever-increasing source of pleasure. The work of planting, too, comes at a time of year when the other work of the garden is not so urgent, and when once finished you may confidently look forward to a good show in the spring. This more especially refers to

THE DAFFODIL

(after all the most graceful of spring flowers). I know of no other flower that is so happy, so hardy, and such a consistent bloomer. No matter what the season may be, up it comes in the grass in due course as fresh as ever, and it has another good recommendation—none of the vermin tribe will interfere with it. Even our old and familiar friends the birds, rabbits, mice, slugs, &c., although they will sample most things pretty freely, when they come to the Daffodil they, as it were, give it a wide berth and pass by on the other side.

In giving advice about planting it is hardly necessary for me to warn intending planters to avoid the slightest suspicion of a straight line or formality of any sort or description. When planting a fresh spot my own plan is to make 100 or 200 holes and mix early and late Daffodils, Tulips, and Hyacinths in an open basket, and plant them in a haphazard sort of way. This I know is not considered to be the orthodox plan, or the system advised by experts to be adopted. We are, I think, advised to plant the different varieties in separate groups by themselves, and possibly, where you have many acres of grass, this plan answers fairly well. But where space and funds are limited, as they mostly are, the object we should aim at, I take it, is to get as continuous and as pretty a show for as long a period as possible on the same plot of ground, and by my system I think I may claim to have moderately well attained this. If you plant in small groups, say early and late Daffodils side by side, as soon as the early ones are over the whole effect is marred by masses of faded flowers near those in bloom, whereas with only a few faded ones here and there they are scarcely noticed.—Paper read by Mr. A. TROWER at a meeting of the Redhill, Reigate, and District Gardeners' Association, September 27.

(To be continued.)

HARDY FLOWERS FOR CUTTING.

(Continued from page 260.)

SOME of the *Campanulas* must not be omitted, especially some of the varieties of *C. persicifolia*, though they are of very short duration in hot weather. The best are *C. p. grandiflora*, single, with blue flowers 2 inches across, and *C. p. grandiflora alba*, with large single white flowers. Both grow about 2 feet in height and flower in early July. The double and semi-double varieties are not so good. *Scabiosa caucasica* is a most valuable perennial where it succeeds, but it is often a failure on cold wet soils, as also where slugs are busy, as it is one of their favourite delicacies when it is trying to shoot up in the spring. There are several good varieties, the best being *S. caucasica magnifica*, which has flowers 2 inches to 3 inches in diameter, almost pale sky blue, inclining to lilac. The rarity of flowers of this colour makes it specially worth trying to grow.

A most useful white flower for cutting, principally in July, though it is of no great beauty in itself, is *Achillea Ptarmica flore-pleno*. It is known as The Pearl, and the original type of the plant is the British Sneezewort (*Ptarmica vulgaris*). If the blossoms are all cut off after the first crop is over it will usually produce a second crop. It grows about 3 feet in height, and sends up shoots so thickly that it is necessary to thin them out, as they are naturally very slender and need some support, and this weakness is accentuated if the stems are too close together.

Of the Globe Thistles the best is *Echinops Ritro*, a large, strong-growing plant 3 feet to 4 feet high, bearing globular heads of blue flowers. Some prefer

ruthenicus, which has a smaller habit of growth, and has blue ball-shaped heads of blossom 2 inches in diameter. Both will grow in any ordinary garden soil, but they are not adapted for small gardens as they need a deal of space. They are effective for indoor decoration in large vases, and as they have handsome leaves covered with silvery down they look very well if arranged by themselves.

A different kind of Thistle-like flower is the Sea Holly, which, though no one would think it upon first acquaintance, belongs to the order of the Umbelliferae—the Hemlock family. There are several species which are grown in gardens, the best being *Eryngium olivierianum*, 3 feet high, of easy cultivation; *E. amethystinum*, 2½ feet high, the spiny involucre of which is of a fine amethyst blue; and *E. alpinum*, 2 feet high, with soft bracts, which, as well as the stems, are of a beautiful blue. These three will grow in almost any soil provided it is well drained, but otherwise they are liable to damping off in the winter. They are easy to raise from seed, and it is well not to attempt to increase them by division, as they take a long time to recover from the operation. They are said to come a brighter colour in a light sandy or chalky soil.

The Marguerites must not be forgotten, and the best for cutting is undoubtedly *Chrysanthemum maximum*, or one of its hybrids, *C. m. grandiflorum*. This last has large flowers 4 inches in diameter, which last a long time in water, and are very effective. If picked soon after the flowers expand, or before the disc florets begin to develop, they will last for nearly a fortnight in water. It grows about 3 feet in height. The remark about the development of the disc florets applies to all Daisy-like flowers. Coming to the

SEPTEMBER AND OCTOBER

flowering plants there are three indispensable classes which should be in every garden. One is the Japanese Anemone, or *Anemone japonica*. Many new forms in various shades of pink have been introduced in recent years, but there is none to beat, or even equal, the *Anemone japonica alba Honorine Joubert*, with large white flowers and greenish yellow centres. It does best in a slightly shady position, and should be left undisturbed for years.

The second class, which is indispensable, is an infinitely larger one, and that is the perennial Aster, or Michaelmas Daisy. They will grow anywhere, and some are so rampant in their growth that they will crowd out other things. Such varieties should be in the margin of the shrubbery or wild garden. There are two main classes from the decorative point of view—those which are grown for the beauty of their individual flowers, these being from half an inch to 2 inches in diameter, and those which produce long sprays of minute flowers which are so charming when mixed with other things, and almost take the place in autumn which the *Gypsophila* occupies in the summer. There are many Michaelmas Daisies which do not come within either of these classes, and such should not be chosen if indoor decoration is one of the objects in view, as they are not effective. Of the purely decorative class one of the best is *Aster cordifolius elegans*, producing long graceful sprays of soft lilac flowers in great profusion, and growing 5 feet high. But the varieties in both classes are so numerous, and the colours, habits of growth, and size of flowers so various that no selection could be made in an article of this character.

The third indispensable class is the early-flowering section of the *Chrysanthemum*. This is another very extensive class, and is becoming more so every year. Some will bloom in August and even in July, while others continue into November in a favourable season. They should be pinched back to keep them bushy, and by this means those inclined to bloom in August, when they are not wanted, can be made to bloom at Michaelmas. Three of the best varieties, all flowering in September and October, and growing from 2 feet to 3 feet in height, are *Mme. C. Desgrange* (white), *Orange Child* (deep yellow), and *Harvest Home* (bronzey red).

NOVEMBER AND DECEMBER

are necessarily almost barren of flowers, though foliage, seed-pods and berries are often beautiful. The Christmas Rose should have the protection of a hand-light to keep the flowers clean. The Winter Heliotrope (*Petasites fragrans*) is very acceptable in a mild season and very sweet scented, but severe frost kills the blossoms. These are the only two plants outdoors that are of much use for cutting at this season in most parts of the country. Favoured places in the south and south-west are, of course, much better off in this respect. But if a shrub may be included among hardy perennials, there is the Winter Jasmine (*Jasminum nudiflorum*), which will flower the whole winter in any aspect in a mild season, and opens well in water in a warm room, also the Winter Sweet (*Chimonanthus fragrans*).

The above list of plants is not, of course, exhaustive. The flowers named are the best for cutting at the different seasons of the year, all being free blooming, easy of cultivation in ordinary soil, and most of them lasting a good time in water. Some of those with tough stems, like some of the Sunflowers, are apt to flag sometimes very soon, and vary in this respect in a most unaccountable manner. This tendency may often be lessened by splitting the stems 1 inch or 2 inches up, or by cutting fresh pieces off the ends just before they are placed in water.

ALGER PETTS.

A GENERAL CALENDAR.

THINNING OUT CLIMBING AND POLE ROSES.

NOW is the best time for this necessary operation. If the plants are relieved in autumn of all the very old wood the remaining growths stand a better chance of ripening, and will consequently be the better fitted to pass through a severe winter without injury. The eggs of troublesome insect pests are usually deposited upon the old wood, and to destroy them means less trouble in spring. It is surprising how vigorous-growing Roses are helped by cutting away the worn-out wood. If this is allowed to remain the best eyes at the base are prevented from breaking, and the plants in a few years become unsightly and worthless. There is also a great difference in the trusses of blossom produced from wood not more than two years old, while those emanating from poor, twiggy shoots are always unsatisfactory. When Roses upon walls and trellises have been neglected, the present is just the time to clear away a lot of this superfluous growth. It may not be convenient to thin out such plants as one could wish, but a start should be made. Then, if they are annually treated as advised, a change for the better will be the result.

Fuchsias.—Good cuttings are difficult to get at the end of the summer, but by looking over the plants which have been bedded out young growths free from flower-buds can be obtained, the recent rains having induced growth at the expense of flowers. These should be inserted in small pots and placed in a propagating pit. Here they will soon root. Give pot room as required, keep them growing in a temperature from 55° to 60° through the winter months, pinch the lateral growths, and allow the centre growth, secured to stout stakes, to run up at will. Good plants may thus be obtained by bedding out time from 4 feet to 5 feet in height. Varieties suitable for this purpose are *Mrs. Marshall*, *Rose of Castile Improved*, and *Ballet Girl* (a good double).

Gathering fruit.—By this time most fruits will have been gathered, though there may still be some of the latest Pears hanging. Medlars and Quinces are still on the trees in some places. The first dry day should be chosen to finish up all the work of gathering, for the fruits will not improve by being left on any longer. Medlars should never be placed in the same store as other fruits, for the moisture arising from the latter will be sure to spoil them. The only place in which they will ripen properly is a dry one, where they can be kept cool as well.

Walnuts which have been gathered and placed in heaps should now have the pulpy outside casing removed from the shells, the latter should be rubbed dry and the Nuts stored in Rhubarb or Seakale pots placed upon a stone floor. Here both Walnuts and Filberts will be found to keep well. It will be necessary to overhaul the fruit proper frequently, removing all that show the slightest signs of decay. It is during the first few weeks after storing that such fruits are sure to be found, for, in spite of every care, some blemished ones are sure to find their way to the shelves.

Currants on north walls.—The usefulness of these cannot be over-estimated; they are both useful and ornamental. I prefer cordons, double or single, as grown thus the trees may be kept closely spurred in and the space more quickly filled. There is no difficulty in protecting trees grown in this way, and the fruit will keep sound for weeks after the crop on the bushes is over. Such kinds as *Reine Victoria*, *Raby Castle*, *La Versailles*, and the *White Dutch* lend themselves readily to this mode of culture.

Strawberry St. Joseph.—This variety is proving most useful this autumn; the colour and flavour are all that can be desired. The fruits are not large, but they are produced freely, so that what is lost in size is made up in quantity. Plants potted up early in small pots should now be placed on shelves near the glass, and, if needed for any special purpose, it is surprising what quantities of fruit small plants will furnish.

Green Mint.—In winter dried Mint is very useful for soups, &c., but fresh green Mint is decidedly better, and there need be no difficulty in securing a regular supply throughout the whole of the winter and early spring; in fact, until the outdoor plants begin to grow again naturally. But, in order to accomplish this, two things are indispensable, the first being a healthy, vigorous bed of well-established plants in the open air, and the second a well-heated greenhouse or pit. A fortnight or so before the first cutting of young Mint is wanted, take up one or more good masses of these roots, according to the quantity required, the best way being to cut them out with a sharp shade, getting well down below the "mat," and lifting each piece with plenty of soil on the roots. Lay them out on a bed of good light and rich soil in the greenhouse or pit, or in boxes will do, covering them with 1 inch or 2 inches of the same material, and give the whole a good watering in a genial temperature of 50° to 60°. The roots will soon begin to grow, and when 3 inches or 4 inches high the young shoots may be cut or the lower leaves simply picked off. Fresh shoots will keep on pushing up for some time, but after a while the roots become exhausted, and must then be turned out and a fresh batch introduced.

T. B. FIELD.

THE ROSE GARDEN.

ROSE LONGWORTH RAMBLER.

LAST year Rose Longworth Rambler was very disappointing; it appeared to dislike the dull weather and the almost continuous rainfall of the summer and autumn. It made one appraise this Rose at a much lower valuation than usual. This year, however, it has been much better, and has flowered continuously from early summer until now. It is still in bloom, pleasing every one with its light and informal-looking crimson flowers. As a pillar Rose it is most valuable, but its behaviour last year points to the necessity of giving it a warm and dry position as compared with many others Roses.

S. ARNOTT.

ROSE WHITE PET.

WHAT a splendid bedding variety this is, flowering continuously all the summer and far into the autumn. It is vigorous, yet never seems to make much growth actually, but continues to throw up sucker-like shoots, each terminating in a huge cluster of pure white flowers, yet with perhaps the faintest

dash of pink at the back of the petals. For covering a bank this is a glorious Rose, and should not be planted too thickly, as in that way it loses its individuality somewhat. E. M.

ROUND ABOUT A GARDEN.

AUTUMN VISITORS.

AUTUMN in the country is the season of strange visitors in the garden—visitors who are often extremely unwelcome from the gardener's point of view, but whom you have hardly the heart to expel at sight. A healthy covey of artridges, enjoying a dust bath in the surface of a sunny flower-bed, make almost as much disorder as a scratching hen; but even from the door you can hear the distant popping of guns in the fields beyond the paddock, and you feel half inclined to go out quietly by the other gate and leave the partridges to enjoy a morning of peace in life even during the shooting season. But they usually settle the question for you, and whirr away over the shrubbery as you emerge from the porch; and if they choose to circle round and come in again presently by the kitchen garden, that is the gardener's concern.

A WILY OLD TRESPASSER.

The solitary cock pheasant presents a different problem. When he catches sight of you, he merely bolts, tail in air, for the nearest shrubbery, through which by devious ways he hurries to the furthest cover that the garden contains. He is an old campaigner, and has no intention of returning to the fields just yet. There are too many men with guns and dogs about for his liking, and he seems to know, either from experience—the experience of deceased friends—or by happy intuition, that men do not shoot pheasants among Chrysanthemums and Cabbages. Yet a pheasant among the flower-beds is almost worse than a hen—which one naturally takes as the lowest type of feathered hooligan in a garden—and you know that this wily old cock, who always saves his skin by running like a grey hound in the shooting season and bullies all the younger cocks in the breeding season, ought to be shot for the good of the estate. But, like the partridges, he settles the question for you, only in an opposite matter; for how can you drive a bird off the premises when he has disappeared into a damp shrubbery and you do not know where he went after that? Besides, a cock pheasant, parading about the lawn early tomorrow morning, will certainly be a fine feature of the garden from your bedroom window, and "Live and let live" is not a bad motto anyway.

THE INFLUX OF WILD BIRDS.

In a game-preserving district, however, it is better in the long run to fence the garden with wire netting which will keep out the hares,

and most of the pheasants and partridges without preventing the influx of the wild birds whose presence one values the more in proportion as the flowers become fewer and the trees grow bare. And there is no doubt that shooting in surrounding fields is a great aid to stocking a garden with bird-life. All the fugitives do not come to stay, for the resident birds of the garden have their own ideas about trespassers, and there are often lively times while your own robins, thrushes, and blackbirds are explaining to the intruders that their company is not desired. But there always remains a residue which successfully resists expulsion, or has been lucky enough to find corners where no resident birds seem to claim vested rights. Thus the garden becomes full of feathered life,



THE NEW CAMPANULA HYBRIDA FERGUSONI.

(Given an award of merit at the Royal Horticultural Society on September 6, 1904.)

and often your lawns and shrubberies will be visited for a day or two by rare and shy strangers not usually seen so near human dwellings. For the sportsman's judicious plan of campaign, whereby the game is gradually driven towards the central fields where the great "shoot" of the season will take place, has a similar effect upon bird-life in general, with the exception that this is allowed to break away unmolested, and to find asylum from the din of firearms in any quiet coppice or garden.

DISTINGUISHED STRANGERS.

After one or two experiences, the small birds are remarkably quick to discover such safety

spots, and as the shooting draws near you can see them hurrying thither from all sides. So, too, when the shooters have once or twice flushed a short-eared owl among the turnips, it may be your turn next to discover him, by the noise that the sparrows are making, lurking among your cabbages; and a moorhen stalking on long angular legs about the margin of the lawn seems a nobler fowl than when, with its legs dangling behind, it hurried in low flight from field to field before the line of dogs and guns. It is, no doubt, the narrow landscape of a garden which seems to dignify each unusual bird which visits it in autumn. The green woodpecker, which flits across the park in looping flight from tree to tree, seems an ordinary bird enough; but in your garden, where you can watch him at close quarters, with his erected crest and upright carriage on the lawn, with his quaint, hammer-headed outlines, and his contrasting hues of crimson, green, and a flash of vivid yellow as he flies, he looks like some rare curiosity of the tropics.

E. K. R.

IN A SURREY GARDEN.

IN the garden at The Hollies, Weybridge (the residence of Mr. G. Ferguson), woodland and water, flowers and foliage are delightfully commingled. As may be seen from the accompanying illustration, Nymphæas stud the surface of the lake, the giant-leaved Gunnera and graceful plumed Cynerium strike a note of dignity by the margin, beds bright with flowers surround the house, which itself is creeper-covered, while on the other side of the lake the cultivated garden passes gradually into the wild garden, and this, again, to woodland. Thousands of bulbs are asleep in the grassy mounds and banks beneath the forest trees, and at the magic touch of spring will cover them with masses and drifts of yellow and green, in shades such as only the flowers and foliage of Daffodils can show, while even before them Scillas blue and Snowdrops white will herald the beginning of a new year. The alpine garden contains many gems among miniature plants, which cover rocks and stones and soil with lovely bits of colour in their season, when the wilder garden loses its spring beauty in the sleep of summer. Thus, as flower gives place to leaf in one place, leaf is smothered with flower in another, and the garden retains an interest, and a beauty too, almost from New Year's Day to Christmas.

When recently we visited the gardens the Delphiniums, of which there is a splendid collection here, most of them hybrid forms raised by Mr. F. W. Smith, the head gardener, were still bright, the pure shades of blue represented being most attractive. Mr. Smith has done a good deal of successful hybridising among garden plants. The Campanulas are the last he has turned attention to, and only a few

weeks ago the floral committee of the Royal Horticultural Society gave an award of merit to Mr. Smith's hybrid *Campanula Fergusoni*, the result of a cross between *C. pyramidalis alba* and *C. carpatica*. The illustration we are able to give of this shows its habit and the form of the pale blue flowers, as well as its floriferousness. There was some doubt as to whether it would prove to be perennial or biennial, but Mr. Smith writes that "the plants are throwing up numerous growths from the base, thus proving them to be perennial. I have reason to believe that it can be had in flower the greater part of the year." For conservatory decoration, and also probably for culture out of doors, this new *Campanula* promises to be of much value. Many other plants are well grown at The Hollies, and this is undoubtedly due to the fact that Mr. Ferguson takes such a keen interest in his garden, which, as may be seen at a glance, is full of possibilities. An inspection shows that they have been taken full advantage of.

RIVIERA GARDENS.

THE nature of the soil of the Riviera is exceedingly varied. At Cannes, in the west, the ground more especially back toward the hills, consists almost entirely of rock. To bring this into a fit state for the cultivation of plants it has first to be broken up with a pick; afterwards the action of the atmosphere and rain, together with artificial watering, crumbles it in a very short time. After two or three years continued manuring it becomes most fertile. All the choicest Palms thrive in this soil without the addition of peat or other materials. This is also the best compost for the Acacias, which cannot be grown in soil containing chalk, however rich and well cultivated it may be. It is for this reason that the Acacia will not thrive at Nice, Beaulieu, Mentone, or, in fact, anywhere to the east of Cannes. Beyond Cannes, in the direction of Nice, where the mountains are a greater distance from the sea, the soil changes completely, becoming alternately a sandy loam or a dark brown loamy soil containing much chalk. It is, generally speaking, very poor, the cultivation of the Olive for the last few centuries having greatly exhausted it. Just before reaching Nice, on the borders of the River Var, there is a large plain, several square miles in area, the soil of which is of a rich sandy nature to the depth of 3 feet or 4 feet. This plain is really the vegetable garden and orchard of the Riviera, where Asparagus, Peaches, and Strawberries are grown in considerable quantities. A few portions, each comprising more than ten acres of ground, are devoted entirely to Peach culture. The Asparagus grown in this district rivals in excellence the world-famed product of Argenteuil. Immense quantities of Strawberries are also cultivated. It is too much exposed here for the cultivation of flowers out of doors in winter, with the exception, however, of Princess of Wales and Parma Violets. On the western side of the Riviera by far the commonest tree is the Aleppo Pine (*Pinus halepensis*), which covers many miles of mountain slopes and hillsides. The cones of this Pine are here largely used as firewood.

Notwithstanding their comparatively recent formation, Riviera gardens now have a most varied and luxuriant vegetation, almost tropical in character. Palms form the principal feature. *Phoenix canariensis* is one of the most commonly planted, and succeeds well. This and *Washingtonia*

filifera are frequently planted in avenues, and then have a fine bold appearance. *Phoenix dactylifera* (the Date Palm) is also abundant. In some gardens it produces and ripens its fruit. This species is largely planted along the seashore at Cannes, Nice, and other towns. *Cocos plumosa* develops into a large tree. It is not uncommon to meet with it 50 feet high. Some of the older specimens flower and fruit annually. The magnificent clumps of Bamboos are a feature of Riviera gardens.

The flower-beds of these gardens present a great variety of form and colour. Such gorgeous displays as we see there during winter always impress the visitor to these Mediterranean shores. To keep these beds bright from November to April two almost distinct plantings are necessary. The plants put out in November furnish the first display, and are supplanted about February by others. As the season is so short the majority of plants are necessarily near the flowering stage when transferred to the beds. The primary

are often damaged and sometimes partly washed away by the heavy autumn rains. Every garden is provided with stone gutters by the side of the walks, but even these are sometimes insufficient to carry off the water quickly enough.

The area devoted to flower farms, where whole fields are cropped with beautiful and odoriferous flowers, is a very considerable one, and comprises the towns of Nice, Cannes, and Grasse. Certain localities in this area have their own peculiar floral output. For instance, Cannes, Nice, and Antibes are famous for Roses; Grasse for its Jonquils, Violets, Tuberoses, Jasmine, and Mignonette; Hyères for Violets; and the suburbs of Cannes for Pinks. In the matter of profit, the districts of Cannes and Antibes rank first; excellent returns are also secured around Golfe Juan and Beaulieu. The total area actually cropped with flowers is nearly 1,800 acres. In packing flowers for transport great care is taken to have them dry. The more delicate ones, before being sent away, are hung up by the stalks in a room, so that all



VIEW IN THE GARDENS AT THE HOLLIES, WEYBRIDGE, THE RESIDENCE OF MR. G. FERGUSON.

occupants of these are *Salvias*, *Daisies*, *Primulas*, *Pansies*, *Solanums*, *Carnations*, &c. These are followed by *Cinerarias*, *Freesias*, *Ranunculuses*, *Hyacinths*, *Tulips*, &c. *Anemones* do very well on the Riviera. Mixed beds of them are often seen. *A. fulgens* is usually planted in beds by itself, and the multitude of bright red star-like flowers the plants produce fully justify this indulgence. Occasionally one meets with beds filled with forced Roses of such varieties as *Baroness Rothschild*, *La France*, *Ulrich Brunner*, &c. *Pteris tremula* and some of the hardy *Adiantums* are planted in beds with various other plants.

The routine work of these gardens is very different from that of our English ones. In April, when all the visitors have returned northwards, the lawns are roughly dug over. They remain in this state throughout the summer, and during that time bear a great resemblance to ploughed fields. It is, however, quite necessary to treat them in this way, otherwise the grass would be completely burned up by the hot sun. In October the lawns are again dug over, levelled, raked, and resown. The newly-sown lawns, especially those on a slope,

moisture may be dispelled from them. In packing the baskets flowering shoots of *Acacia* form the first layer, the centre being filled with choicer blooms wrapped in tissue paper. France alone consumes half of the Riviera output; Paris, with its numerous flower shops, fêtes, and other festivities is, of course, the principal market. Z.

TREES AND SHRUBS.

THE CRATÆGUS AT KEW.

WELL worth a visit from those who are interested in ornamental fruiting trees is the collection of *Cratægus* between the Temperate house and the Pagoda at Kew, for the majority of the specimens are carrying large crops of fruit. For planting in shrubberies, on lawns, or for grouping in large masses in parks and plantations, many of these Thorns are well suited. They can be relied upon to flower well annually, while the majority fruit

freely each year as well. The leaves of some species colour brilliantly also. The following are some of the best:

C. monogyna, one of our common British Thorns, is smothered with small, deep red fruits, but in beauty it is surpassed by several of its varieties, such as *pinnatifolia*, *eriocarpa*, *fuscata*, and *granatensis*, all of which produce larger and more showy fruits than the type. Another variety of *C. monogyna* that is very showy is *C. m. var. ramulifera aurea*; on this the fruits are very bright red, while the leaves have taken on a very pretty yellow tinge.

C. orientalis is a distinct species from the Orient, with very hairy leaves, young wood, and fruit. The colour of the fruit is orange-scarlet, and it is about the size of a small Cherry. There is a variety called *anguinea*, with deep red fruits, and a form of the type with red and yellow mottled fruit. A species somewhat like the last-named in leaf, and coming from the same country, is *C. tanacetifolia*; the fruit is, however, yellow, with a slight red flush on the sunny side, as large as a Siberian Crab, while the calyx lobes are erect. *C. pinnatifida* is a Chinese plant easily recognised by its large leaves and distinct red fruits. The variety major is, however, much finer, the fruits being as large as good-sized Cherries.

C. Crus-galli (the Cock's-spur Thorn), from North America, is particularly showy, and a certain fruiter; the fruits are large and bright red. There are numerous varieties, of which good ones are *arbutifolia*, *fontanesiana*, *ovalifolia*, *prunifolia*, and *splendens*. The leaves of these colour brilliantly in autumn. *C. coccinea* is a native of the Eastern United States, and, like the foregoing, is very striking, the fruits being in large heads, red, and showy. *C. Azarolus var. François Rigaud* is conspicuous by reason of its immense crop, while *C. macrantha* is very distinct on account of its smooth, round, coral-like fruits.

C. punctata is represented by several large trees in as many varieties. *C. p. var. brevispina* has deep red, *C. p. var. xanthocarpa* yellow, and *C. p. var. striata* red, green, speckled, and striped fruit, while that of the type is red and green. Among the others *C. nigra* is very conspicuous by reason of its black fruits, while some bushes of *C. Pyracantha* are smothered with orange-scarlet berries.

Possibly *C. mollis* is the most conspicuous, every branch being loaded with fruits of the most showy character. The individual fruits are large and bright red, while they are borne in good-sized clusters, added to this the leaves are turning to a pretty shade of yellow. *C. Carrieri* and *C. Douglasii* have not yet coloured well; when ripe the fruit is orange. *C. cordata* likewise is not at its best yet. In addition to those already mentioned, *C. succulenta*, *C. flava*, *C. mollis var. tillæfolia*, *C. dipeliana*, and others are all good.

W. DALLIMORE.

THE FRUIT GARDEN.

SOME NEW LATE PEACHES.

AT this season the Peach claims considerable attention from growers who wish to maintain a good supply of dessert fruit. The past season has not been unfavourable for testing the merits of the newer sorts that fruited during September. In writing on the merits of either Peaches or Nectarines the soil and situation must be considered. On heavy clay soils or land needing drainage the same results are not secured; in places near the coast the fruits may ripen earlier; while in the midlands or the northern parts of the country they would be later. In some places it would be unwise to plant the latest fruits, as they would fail to mature.

There is no lack of midseason varieties; for instance, *Bellegarde*, *Dymond*, *Stirling Castle*, *Royal George*, and *Crimson Galande*. Some of these are not always reliable; for instance, even under the best culture *Royal George* in a wet

season gets mildew badly. So far I have not found this defect in the new kinds; they are excellent growers, and crop grandly. Thomas Rivers comes first among the new late Peaches. This season has proved it to be a splendid acquisition. As regards flavour it compares most favourably with the older kinds noted above, and, though in this part of the country the nights lately have been cold and we have had several rainy days, which are not favourable to ripening Peaches, the new Thomas Rivers is very good. It grows freely, sets well, and should make a splendid cool house variety for use early in September. It was raised by Messrs. Rivers and Son, Sawbridgeworth. This new Peach was given a first-class certificate by the fruit committee of the Royal Horticultural Society in 1898, and was at the time considered to be a splendid addition to the late kinds, and certainly it deserved the award. It crops grandly, and should find a home in all gardens. The raisers recommend it as a good forcing variety. To show its good forcing properties, I may add that Messrs. Rivers staged this Peach on June 28, 1898, and I saw some splendid pot trees a little later this season. The fruits grown thus were very large and of deep colouring.

The next new variety that I find equal in every respect to the best of the older fruits is the Late Devonian, which was certificated a few years ago. This new fruit, as its name implies, is from Devon, and was raised by Messrs. R. Veitch, Exeter. We find it one of our best open wall fruits for use late in September. We planted it on two different sites, viz., facing west and south-west, and on the latter it is a grand fruit, large, and beautifully coloured. It was raised from a cross between Early Belle de Vitry and the better known Late Admirable. I consider it superior to the last-named in flavour. The fruits are large, handsome, and highly coloured; the skin is greenish yellow on the shaded side, and a rich dark crimson on the reverse; the flesh is pale yellow, tinged with red. The fruit is in season in late September.

Another new late Peach that will, I think, make a name for itself is Duchess of York. This I have not yet been able to give a trial, but hope to do so. It is of splendid flavour. It was sent out this season by Messrs. Bunyard. Last year a new late Peach called *Libra*, a large fruit of high quality, a seedling that the late Mr. Blackmore raised, was sent out by Mr. Tayler of Hampton; it should prove interesting to fruit growers, and valuable also if it crops well. The quality and size are excellent, and the fruits are handsome. Mr. Tayler thinks highly of it for wall culture.

G. WYTHES.

RASPBERRIES AND STRAWBERRIES IN AUTUMN.

(Continued from page 262.)

PERPETUAL-FRUITING STRAWBERRIES.—These are the result of crossing the Alpine with the summer-fruited varieties. They are very useful indeed for autumn cropping, being reliable even under such seasons as the present, but are a degree later in arriving at maturity. The best position for them is a warm border where all the sunshine during the autumn can benefit them. Our plan is to pick off all the early or first crop of flower-trusses, in order to concentrate the vigour of the plant upon the secondary growth and the spikes that succeed the same. In this way I find that we gain something in point of time and likewise in the crop. This season, for instance, the first fruits of *St. Joseph* were ripening the third week in August—these came in extremely useful for kitchen use. Part of the stock of these Strawberries is grown in pots in order to extend the season until the end of October and sometimes into November. The runners to provide this crop are layered right away into 4½-inch pots as soon as we can secure them. I like to see them all layered by the middle of July, and well rooted by the end of the month. By the middle of August or thereabouts they will be fit to take off, and by the end of the month the first flower-trusses will be showing, so precocious are these young plants.

A light, sunny position should be given this stock whilst still out of doors. The earliest will be fit to house by the middle of September. In doing this the better plan is to make a selection of the forwardest plants. Give them at once positions near the glass, on shelves if possible, as with the spring-fruited stock. Later batches can be brought in as may be desirable, but it will be found the better plan to house all that are showing flower by the first week in October. A freely ventilated house is the best place for them, no artificial warmth being needed until October is well advanced. By using the syringe freely there should not be any fear of the red spider. As these plants go out of bearing, they are set aside for the next season's crop in the open border, being planted out as soon as convenient. It is not expedient on the whole to save the old stools over for the second season's crop in the open. It may be done—in fact we have them still at Gunnersbury in good bearing, October 13. These plants are put out at about 2 feet each way. In wet seasons like the present we find a great benefit by using bell-glasses to cover the plants. (The *cloches* of the French growers are what we use; these in the spring cover the earlier crops of Lettuce, and in two seasons will well repay their initial cost.) These should be put over the plants by the middle of September. Before doing it, however, it is a good plan to go over the plants and take off any superfluous foliage, afterwards propping up the fruits upon sprays made of old Birch brooms, or by means of wire supports, so as to keep them quite clear of the ground. Of these Strawberries we grow about 1,000 yearly in pots, planting out only the best afterwards. *Varieties*:—The pioneer of this section was probably Louis Gauthier. We do not grow this now, as it fruits in autumn only upon the runners, whereas all the following fruit upon the old stools in addition: *St. Joseph*, recommended for its cropping qualities more than for its flavour; *Jeanne d'Arc*, similar to, but on the whole better than, the preceding; *Oregon* and *St. Antoine de Padoue*—these I have bracketed, for they are very similar; they are the two best autumn-fruited varieties for dessert, cropping well, and of good flavour; both are similar to *Royal Sovereign*.

By means of plants that have been forced the previous spring.—For several seasons in succession we have derived part of our crop by this method. Some of these fruits, picked in the open, were shown before the fruit committee at the first August meeting of this season. These came into bearing soon after the last of Latest of All were gathered. We select for this purpose the earlier forced plants—those that ripened their first crop about the middle of April. I prefer these to the later stock, which is not always so reliable for second fruiting, but tends rather to make a luxurious growth. This year we planted out those chiefly that were forced in 4½-inch pots, and, with the favourable time for establishing them in May, we found them to succeed very well indeed. We do not plant out all from one stage of forced plants for the obvious reason of securing a succession. (It is well known that these plants, even if they miss fruiting in the autumn, will yield a heavy crop under natural conditions the following season.) Last year, and this also, we have adopted the plan of potting on the early forced plants from 4½-inch pots into 6-inch pots or from 6-inch pots into 8½-inch pots. In this way we have added considerably to our source of supply. Scarcely a plant missed showing one or two trusses; but, as we did not want the earliest, we pinched them out in order to get a later truss if possible. This season we have a good batch potted from 4½-inch pots into 6-inch pots, from which a good picking has been taken, and now we have this batch of plants as a whole, which will be the first plants to put in for early forcing this coming season. They are by far the strongest and best crowns we have, being much better than this season's runners. I see no reason whatever why this method should not be extensively adopted, especially of potting, from 4½-inch pots into 6-inch pots. *Royal Sovereign* is the variety I have treated in this way, and it is the second season of the experiment.—J. HUDSON in the *Journal of the Royal Horticultural Society*. Reprinted by permission.

DAFFODIL GROWING IN ENGLAND.

A COMING HOME INDUSTRY.

NOW that Daffodils have become so very low in price it behoves the cultivator to find the cheapest methods of growing them, always providing that the cheapest is also the best. When Daffodil flowers made from 1s. 6d. to 5s. per dozen bunches in the wholesale market the blooms would easily pay for the cultivation of the bulbs, but now the prices have dropped down to 9d. and even 5d. per dozen bunches, growers must leave no stone unturned if they are to see any profit; and the most economical methods must be used. One of the great labour-saving appliances is the plough. This was first used by some of the largest growers of the Daffodil as a cut flower. Mr. James Walker of Ham Common was the first one I saw employing it. Later on the Lincolnshire growers took it up with success. For a long time we held aloof from the plough, one difficulty in our case being the great number of varieties grown, but as our stock increased until it spread out into acres the necessity for some quicker method than hand labour forced itself upon us. Two years ago we bought a small one-horse plough, and after some little trouble in getting a start, for all new methods in nursery and farm work take a little time before they run smoothly, we found that it went both quickly and well. Given a good ploughman and a steady horse, the rows can be planted quite straight, and as regular a depth can be maintained as if planted by the spade. The growth of the bulb is also perfectly satisfactory. As to the saving of time, there is no doubt about that, since as much work can be done in a day with a given number of men and boys as the same number could do by spade labour in a fortnight. In our own case we this season planted some 250,000 bulbs in three days.

Bulb growing is becoming quite an industry in this country, and deserves the fullest support and encouragement, for there is no reason why a great deal of money which is now sent abroad for bulbs should not be kept at home; while here is another industry which will, when fully developed, help to bring the workmen back to the land, an end which many are now strenuously striving by word and deed to bring about.

J. DUNCAN PEARSON.

The Nurseries, Lowdham, Notts.

GARDENING OF THE WEEK.

FLOWER GARDEN.

SPRING BEDDING.

EXCEPT in the coldest parts of the country, many summer-flowering plants are still in great beauty. Begonias—both the tuberous-rooted and semper-florens sections and *Lobelia cardinalis*—again assert their superiority over the Geranium as all-round bedding plants. There has been no frost, and the rainfall, usually heavy in September and October, has been several inches below the average; but probably by the time these notes are in print we shall have had frosts of sufficient severity to render it necessary to clear off the beds and prepare them for the reception of spring bedding plants. In any case where the beds have to be so filled it is high time they were planted. Most bulbs deteriorate if kept unplanted after this month is out, and in the case of Wall-flowers, *Silenes*, and the many other plants used for spring displays, the earlier they can be planted the quicker they become established, and so better

able to withstand frosts. Where the beds are of sufficient size the use of dwarf shrubs—*Retinosporas*, *Cupressus*, *Hollies*, *Aucubas*, *Euonymus*, &c.—has much to recommend it. The bi-annual lifting tends to keep them dwarf, and with a little judicious pruning in the spring the same plants may be used for many years. When planting due care should be taken to do so firmly and to keep the specimen erect.

LIFTING AND STORING DAHLIAS.

After the foliage has been blackened by frosts the Dahlia tubers should be at once lifted, first cutting down the stems to about 7 inches or 8 inches from the ground. The tubers are very brittle, and should be lifted carefully. In a mixed collection see that the labels are securely attached. Place the tubers in their winter quarters with the stems downwards. After a few days they may be reversed and covered with dry soil. Such work as this should be reserved for wet days. Cannas should be treated somewhat similarly, except that they require rather more drying and to be stored in a slightly warmer place.

TUBEROUS BEGONIAS.

As a rule, the flower-stems and tubers part company after the first frost of any severity, but if

INDOOR GARDEN.

LESCHENAULTIA BILOBA MAJOR.

There are few more beautiful plants in flower during summer than this when it is well grown. It is not of easy culture, and from now until spring the greatest care and attention to watering should be given. Fresh air should on all occasions be freely admitted to the house, and keep the plants near the glass. Stimulants should not be too freely used as a means to encourage a robust growth, and in no case will their application be necessary during the dull winter months.

PITCHER PLANTS (NEPENTHES).

These are generally grown in baskets, and although the supply of water to the roots should be much reduced during winter, it will be necessary to syringe the baskets frequently to keep them moderately moist. As at this season they should not be encouraged to make growth, so the temperature should be lowered to 65° maximum, and a little air on favourable occasions will help to mature the growth.

SCHIZANTHUS.

Plants that have just been put into 3-inch pots, and the more forward into 5-inch pots, should be



PLANTING DAFFODILS BY THE ACRE: A BUSY SCENE AT MESSRS. J. R. PEARSON AND SONS' NURSERIES, LOWDHAM, NOTTS.

they do not separate easily it is best to lift them intact and lay them out in a cool, dry shed for a time. The tubers may ultimately be placed in boxes of dry soil or sand and be stored in a cool place.

LOBELIA CARDINALIS.

Many losses during the winter are due to coddling. The plants will withstand unhurt at least 20° of frost if planted closely on a south border and on the approach of severe frosts covered with a layer of leaves or Bracken. Where the frost exceeds the number of degrees stated, it would be wise to plant them thickly in boxes and winter in a frame.

Under these conditions air should be admitted as freely as possible, but drip is fatal. If the flower-beds are laid out in grass planks should be placed where there is to be any traffic, and as far as possible the work should be done on dry days.

A. C. BARTLETT.

Peacarrow Gardens, Bodmin.

given full exposure to light, and afforded as much air as possible to keep the growth stocky and firm. The dwarf variety *wisetonensis* is best when grown singly in moderate-sized pots, but of the larger-growing *pinnatus roseus*, *retusus*, and *candidissimus*, three may be placed in larger pots; in this way extra large specimens can be grown. It is a mistake to force growth by the use of stimulants, as generally the plants grow strong enough in a good compost. When their pots are full of roots a dressing or two with Clay's Fertilizer, or the application of liquid made from sheep manure and soot, will help to keep them robust and healthy.

STREPTOCARPUS.

Plants that have just flowered are being placed in a dry cool house to rest until early spring. Afford them sufficient water only at the root to keep them healthy in the new year, when they should be started into growth, and with good treatment can be grown into fine specimens.

AUTUMN AND WINTER FLOWERING PLANTS.

Among these are Cyclamens. More often than not these are placed in a close, warm house, and not only are the leaf-stalks then elongated and drawn, but the flower-stems also get drawn, and are unable to support the flowers properly. Place the plants near the glass with a maximum temperature of 55°, and on all occasions that are favourable admit abundance of air. These remarks will apply equally to Primulas, Mignonette, winter-flowering Geraniums, Tree Carnations, &c., all of which at this season will do best under the conditions above mentioned.

J. P. LEADBETTER.

The Gardens, Tranby Croft, Hull.

FRUIT GARDEN.

FIGS.

THE earliest trees in pots, which were repotted or top-dressed as advised in a previous calendar and placed out of doors, should soon be prepared for forcing, and very little, if any, pruning will be required if the disbudding was properly attended to. If brown scale is troublesome the trees should be washed with a brush, using warm water, and adding 2oz. of carbolic soft soap to each gallon; take care not to injure the young fruits. When the trees are started make up a slight hot-bed of litter and leaves, and plunge the trees near the glass, with a night temperature of 50°, with a rise to 55° to 60° during the day with sun-heat.

RASPBERRIES.

If it is intended to make new plantations of these the ground should be prepared. Raspberries require a rich soil, and will occupy the same position for several years. The ground should be trenched 2 feet deep and a liberal quantity of half-decayed manure used, and with heavy soils vegetable refuse, wood ashes, leaf-mould, and road sweepings should be freely mixed. As soon as the soil has settled down and home-grown canes are at hand the planting should not be deferred. Choose medium-sized canes in preference to strong, succulent ones. The canes should be planted about 2 feet apart and 5 feet between the rows; spread out the roots carefully and make the soil firm around them; and defer topping the canes until spring. Well mulch the canes with litter before severe frosts set in. If the clearing of established quarters has been delayed, this should now be done, removing all old and weak canes, retaining only the strongest for future bearing. Tie up the canes loosely to prevent damage by strong winds, and afterwards give a liberal mulching of rich manure.

STRAWBERRIES.

Look over the beds and borders of recently set out plants and remove any late runners, lightly hoe the soil between the rows, and mulch with half-decayed manure.

BUSH FRUITS.

Preparation should be made for planting these. Red and White Currants generally shed their leaves first, and these should be commenced with and carried on whenever the weather is favourable. By planting in the autumn the bushes become established before spring, and the work can be better carried out than later, when the soil is wet and cold. They may be planted in an open position in well-drained soil about 5 feet apart, although a sheltered position may be selected with good results. Good varieties of Red are Fay's Prolific, Comet, and Ruby Castle. Versailles and White Grape are good white varieties. Planting Gooseberries and Black Currants should follow; the latter do well in a moist, shaded position. Gooseberries and Red and White Currants should be grown on clean stems, when no suckers will follow.

Impney Gardens, Droitwich.

F. JORDAN.

KITCHEN GARDEN.

ENDIVE.

It is now time for this vegetable to be placed under protection. A portion of the supply may be left for present use. This may be blanched by placing inverted flower-pots over the plants after they have been tied up. If the plants are put into frames they should be given a thorough watering, and the

leaves allowed to dry before placing on the lights. Several boxes should also be filled with plants, as they can be taken to the Mushroom house on short notice. If a quantity of plants still remain in the ground cover them with a frame as a safeguard against accidents.

HERBS.

If these are required green during the winter months lift them now and place in pots or boxes. Remove the top growth of Mint and lift several clumps into boxes, or they may be placed in heated frames. Give abundant air on all favourable occasions to prevent the growth being weak. Tarragon may be treated in the same fashion. A box of Chives is often useful during the winter months. Young healthy plants of Chervil may be grown in the same frame. Marjoram and Sweet Basil ought to be grown in pots and placed near to the glass in a cool house.

PARSLEY,

which is always in demand, should also receive attention, and wherever growing should be protected during severe frost. Plants may still be lifted and placed in cool frames. Keep them a good distance apart to prevent damping, and give plenty of air, except during severe frost. Cut down all herbs in the border and give a good top-dressing of short well-decayed manure.

SEAKALE.

If this is wanted early lift some roots, trim, and allow them to rest for a short time before placing in heat. For the earliest supply pots should be used 11 inches in diameter. Place six or eight roots in each pot, and place close to the pipes in the stove, or a small hotbed may be prepared for them. If no light-proof place sufficiently warm can be found for them the pots may be plunged in a large box, placing an inverted pot on the top of the full one, and covering the whole with a mat. This is a useful and common practice. The main supply should be left in the ground for some time, as in this district the plants are still green, though growth has stopped. Keep enough roots for new plantations, but not those that have been forced. They should be discarded. The straight and strongest pieces should be kept for cutting, and may be plunged in sand in a cool place till required in spring. A few roots of Rhubarb should also be lifted, but allowed to rest for some time before placing in heat.

Hopton House Gardens,

THOMAS HAY.

South Queensferry, N.B.

ORCHIDS.

PHALÆNOPSIS.

Now that light is becoming less day by day and evaporation is not so great, it is necessary to keep these much drier at the roots. When they have been potted in ordinary flower-pots very little water indeed will suffice. Any moss that has overgrown the centre of the plant should be removed. Pinch out all spikes as they appear on plants that have not made satisfactory growth. The atmosphere on all favourable days should be kept humid, and it is also essential to admit fresh air through the bottom ventilators.

EPIDENDRUM CILIARE.

When collar roots are emitted on plants that are well advanced in growth they should be repotted or resurfaced, using the same compost as advised for Cattleyas. Provide them with a light position in the intermediate house. When rooting freely they will take a fair amount of water; at other seasons very little water is required. This species is extremely interesting, and, being a good grower and flowering freely, it is well worth the room it occupies.

BRASSAVOLA DIGBYANA.

This plant should now be given a rest by withholding water. It will go for several weeks after the compost has become dry without shrivelling at this season. Afford them the lightest position possible during the winter months in the coolest part of the stove Orchid house.

ORCHIDS IN FLOWER.

Many beautiful Orchids are now in flower or about to flower, making the Orchid houses much

gayer than they have been since June. We are sometimes apt to maintain a show of flowers for a long season so as to interfere seriously with the future well-being of the plants by allowing the spikes to remain too long. Many of the Cypripediums and Cymbidium will carry their flowers for many weeks without any harm accruing if they are in robust health. But such free-flowering plants as *Lælia præstans*, *Cattleya labiata*, *Oncidium varicosum*, *O. Forbesi*, *Cattleya Harrisonæ*, and *Dendrobium Phalænopsis schröderianum* will, under favourable conditions, keep their flowers fresh for a much longer season than is good for the plants. In no case should the plant be allowed to become shrivelled through flowering, and I would advise the removal of the flower-buds as they appear on all plants that have not made good growth. Even if it is necessary to let them flower, much of the strain can be prevented if the flowers are cut off as soon as they are fully developed. At this season spotting of the flowers is often very troublesome. To prevent it raise plants in flower above the others, maintain a buoyant atmosphere by judicious ventilating and firing, and see that the glass of the houses is kept clean. On cold nights keep the house somewhat dry.

W. P. BOUND.

Gatton Park Gardens, Reigate.

CORRESPONDENCE.

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

POTATO NORTHERN STAR.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is always disappointing to have an idol shattered, but I question whether, generally speaking, Potato Northern Star is coming up to expectations. Of course, it had such a tremendous reputation to maintain that one felt rather sorry for it. In 1903 the demand was in excess of the supply at 20s. per pound; in the spring of this year Northern Star changed hands at from 2s. 6d. to 3s. 6d. per pound; and now the Potato may be said to be within reach of the non-speculative grower, but has it come up to expectations? Accounts appear from time to time of tremendous crops being lifted, but one hears a fair number of complaints as well, and, so far as being disease-resisting is concerned, the variety is no better than many others in this respect. The robust habit of the Potato is good in its way, but through it the plants are kept growing long after other varieties are ready for lifting, and this I consider is a drawback. A few weeks ago I saw Northern Star lifted in a trial of some thirty varieties, but it was easily beaten by Evergood, Dalmeny Beauty, The Factor, and several other sorts as regards weight of crop, and many of the tubers were tainted with disease. Indeed, I must confess to disappointment when Northern Star came out, for, though there were plenty of tubers, they were small and clung to the stem by means of thick, fleshy roots, which were far from being ripe. Perhaps the reputation of the variety has raised people to expect too much from it, but now it is in comparatively general cultivation it would be interesting to have the opinion of other readers of THE GARDEN as to the merits of the much-vaunted Northern Star.

G. H. H.

SINGLE DAHLIAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Looking over my single Dahlias recently I could not help being struck with the beauty of many of the newer sorts Messrs. Cheal and Sons have sent out during the past few years. Although I have only between two and three dozen of the above, they have given me a quantity of flowers almost daily since the middle of August, and are at the present time covered with buds. For decorations they are almost unsurpassed, and a bowl or a vase filled with these small and beautifully coloured flowers at this season of the year is not to be despised. Mr. Crane, in his interesting notes, speaks truthfully of them as seen by him in Messrs.

Cheal's nurseries. I can only add the hope that next year may find more gardeners planting this variety, and that local and other Dahlia shows may more fully recognise the importance (as the National Rose Society is doing) of the value of decorative or garden varieties in their schedules. Among the many varied colourings two beautiful white singles are The Bride and Snowdrop, the former a grand flower, almost flat in shape, the latter rather smaller and reflexed. Beauty's Eye.—A lovely tone of mauve, flowering profusely. Miss Moreland.—A splendid deep rich crimson, and a grand flower. Naomi Tighe.—A dense sulphur-yellow. Hugo.—Scarlet, transfused with purple. Serita.—Very small, but well formed, of a plush crimson. Demon.—Quite the grandest of the dark colours, the deepest maroon, with a light band at margin of each petal, gold centre. Mrs. Henshaw.—A lovely primrose self. Columbine.—Very quaint. Puck.—Pretty in colour and form; and last of the few I name Irene and Nieta, two of the best bizarres. With the grandest of all I have Etna, a colour most difficult to describe. May I add a few words on staking all Dahlia plants? I know the general rule is to drive a stake in the centre, regardless of the tubers and their subsequent growth. Why not take the trouble to put down three good stakes round the plant, and tie up the growth with good strong raffia or tarred twine, thereby allowing full freedom of growth of root and top.

CHARLES W. CROSBY, F.R.H.S.

Broome Hurst, Dorling.

THE DWARF POMEGRANATE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In any selection of plants suitable for a hot, low wall, such as that of a greenhouse, where the height is not sufficient to allow of the development of many popular wall plants, the dwarf Pomegranate is entitled to especial mention, for under such conditions it flowers freely and is always much admired. It is a dense twiggy bush, from 3 feet to 4 feet in height, and the flowers, which are single, are in the bud state of a bright red colour, but after expansion they are of a rich glowing orange tint. Towards the end of the summer it is, as a rule, freely laden with flowers, and in that stage it is delightful. Just before the leaves fall they change to a bright golden yellow, but do not remain long in that stage. According to London this dwarf form was introduced in 1723, but it is far less common than one might expect from its great merits if favourably situated. Given a sunny wall from 3 feet to 12 feet high the other varieties of Pomegranate do well thereon, and they frequently flower freely, especially if the summer has been a hot one.

H. P.

CHRYSANTHEMUM MAXIMUM KING EDWARD.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The illustration represents a fine type of *C. maximum*. It is certainly well described as "King amongst Marguerites." The growth is robust, the plant reaching 30 inches in height, and producing huge cupped flowers fully 6 inches across of the purest white. An award of merit was granted to it by the Royal Horticultural Society, and many first-class certificates have also been given to it. It is an ideal plant for the herbaceous border, and is grown extensively for market by the raiser, Mr. W. Angus, flower grower, Penicuik, N.B.

T.

BROWALLIA SPECIOSA MAJOR.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Few plants give us such a good bit of blue as this, and, what is more, it is a most continuous flowerer. We have some old plants that flowered throughout last winter; these were cut back a little in March to produce cuttings. As soon as we had our stock the old plants were shaken nearly free from old soil, repotted and replaced in gentle heat for two or three weeks, when they were again moved into the greenhouse, and here they have been laden with flower from early June. In fact, the plant acts similarly to *Begonia Gloire de Lorraine*, and can easily be had in bloom throughout the year with very little trouble. These old plants look as though

they would continue to flower throughout the coming winter, but now the young plants are opening their flowers there is no need to keep them, unless it is for a supply of seed, which is produced freely during summer under glass. I have saved a quantity, and intend trying this plant for bedding next summer. Probably it will require to be pegged, as the plant is inclined to become weak. If pegged and the growth pinched frequently while young I think the evil could be averted.

J. MAYNE.

AUTUMN-SOWN CAULIFLOWERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—We experienced the same difficulty with Cauliflower Autumn Giant sown the first week in September as did your correspondent "J. S. Higgins," though in a lesser degree, about 50 per cent. of our plants going blind. There were numbers of blind ones, too, among Early London, but not nearly so many. It cannot be said that our plants received any cuddling, as they were pricked out 6 inches apart under east and west walls in the frame ground. Here they remained until they were planted out in trenches the first week in April. I have found, like Mr. Field, that with sowing early Cauliflowers in January under glass, especially those of the Snowball type, that a very large percentage of the plants button prematurely and are worthless. We generally make a sowing outdoors early in March, but none are so satisfactory as Autumn Giant, Early London, and King of Cauliflowers.

Bicton.

J. MAYNE.

RUDBECKIA MAXIMA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is rather cheering to learn from "G. B. M." that this Cone-flower is difficult to manage, for such is my experience in the cold, heavy soil here. I find a portion of the plant suddenly dies from no apparent reason, so much so that I had almost given up hope of being able to grow this charming border flower. I shall now replant it in a prepared site by adding a little drainage at the base and providing an artificial rooting medium consisting largely of gritty material. This and a mulching during the winter may reward me with success. I

lately saw this *Rudbeckia* growing in sandy soil, and with leaves 2 feet long.

Bishop's Waltham.

E. M.

MORE FRAGRANT CARNATIONS WANTED.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I noticed about three weeks ago that one of your correspondents complained that so few people are growing the garden and pot Carnations. It seems to me the reason is not far to seek. In striving for large blooms and variety in colours, the raisers have apparently overlooked the special charm of the Carnation, i.e., the perfume, which is absent in nearly all the new varieties. I wish you could get some correspondent to give a list of scented Carnations through the medium of your paper. It is impossible to tell from the raisers' catalogues which are scented and which are not.

T. W. HARRIS.

[We hope some one will help our correspondent.—Ed.]

NURSERY GARDENS.

DAHLIAS AT CRAWLEY, SUSSEX.

SINGLES.

THE name of Messrs. J. Cheal and Sons, Crawley, has so long been associated with all that concerns the welfare of the Dahlia, that a few remarks respecting their display this season may be welcomed by all interested in this autumn flower. The single-flowered kinds claim first attention. Messrs. Cheal are repeatedly cutting the blooms for various purposes, and in this way relieve the plants without apparently impairing their display. As a matter of fact, this is one of the secrets of successful culture of the single-flowered Dahlias. At Crawley the flowers are usually gathered when about two-thirds developed, and if they be straightway placed in a vessel of water they continue to open, and invariably remain fresh for four days. They should be gathered in the morning, quite early. Almost without exception the single-flowered ones are borne on stout, erect footstalks, this rendering them invaluable. A large area of the Dahlia



CHRYSANTHEMUM MAXIMUM KING EDWARD. (Much reduced.)



MESSRS. SUTTON AND SONS' LARGE FLOWERED PENTSTEMONS.

grounds is devoted to them, and from among the many good things there to be seen the following are specially noteworthy. Of the 1904 novelties Princess of Wales (soft pink, shaded mauve), Darkness (dark maroon-crimson), and Vesuvius (bright orange-scarlet) are excellent sorts. Snowdrop, raised by this firm, is the finest white single in cultivation. Serita is a good companion to the last-named, on account of its splendid form and rich crimson shaded purple colour. Other good and reliable sorts are Naomi Tighe (sulphur-yellow, with orange ring round disc), Formosa (rich crimson, with golden centre), Beauty's Eye (with crimson ring round disc), Leslie Seale (rich silvery lilac, with broad ring of deep crimson round the disc), and Miss Roberts (a lovely clear yellow). These are just a few of the better things.

POMPONS.

As garden plants the Pompon sorts excel, and in conjunction with the singles they were one of the bright features in the Crawley nursery. It is difficult to understand why these pretty little flowers are not more extensively cultivated. Many of them carried an immense crop of dainty blossoms. This type stands the weather well, and there is a continuous supply. For decorative uses, too, these smaller flowers are very serviceable. The Pompon Dahlias are seen to better advantage when grown on poor land. When planted in rich soil the flowers come larger than is desirable. Almost invariably the flowers are borne on stiff, erect flower-stalks, and for decorative purposes this is essential. Some of the best deserve special mention, *e.g.*, Darkest of All, certainly the darkest Pompon introduced to date; Elsa, introduced in 1903, a pure white, constant and free-flowering; Adelaide, a dainty flower, blush colour, edged with

lavender; Bacchus, still one of the brightest crimson-scarlet flowers in cultivation; Nerissa, beautiful soft rose, tinted with silver, the best of its colour; Demon, although inclined to be a little too big, is a splendid flower—its colour is deep rich crimson, shaded darker in the centre of the bloom; Tommy Keith (cardinal-red, tipped white), Montagne Wooten (white, edged with crimson), Violet (white), Little Bugler (rosy purple), and Ernest Harper (rich red). The 1903 novelty, Mephisto, is a good deep crimson-maroon, and is quite distinct. Adrienne is a flower of splendid shape; the colour is crimson-scarlet. The list of Pompons may well close with Burbank. This is a rich yellow flower, and the plant is very free-flowering and strong-growing.

SHOW AND FANCY DAHLIAS.

These were to be seen in infinite variety. The plants were well grown, and were bearing blooms of large size and good form. Even these heavy-looking flowers compared favourably with the majority of the Cactus-shaped blooms for decorative effect in the garden.

DECORATIVE DAHLIAS.

The decorative Dahlias are specially suited for garden embellishment, and at Crawley this type of the flower is not forgotten. From a florist's point of view the flowers may not be highly regarded, yet the free display, with their highly-coloured blooms, such as Cochineal (richest crimson), Countess of Penbroke (pale lilac), Black Prince (deep maroon), Maid of Kent (bright crimson, tipped white), Grand Duc Alexis (white), and Millie Scupham (golden bronze), have a charm for many.

TOM THUMB DAHLIAS.

There is still a demand for these dwarf hedging sorts, probably owing to their compact habit and continuity of flowering. As an edging to large and bold borders or edgings to beds they are still highly valued. The majority of the plants are about a foot high. The colours are pleasingly diverse. The Cactus Dahlias must be treated in a separate article, as there is so much to say about them, both from an exhibition and garden point of view.

D. B. C.

BEGONIAS AT READING.

AMONG the many flowers with which the name of Messrs. Sutton and Sons is inseparably linked may be mentioned the tuberous Begonia. The tuberous Begonia of to-day is a very different flower from that of ten years ago, and it is not too much to say that Messrs. Sutton and Sons have been closely associated with and are largely responsible for the marked improvement in form, colour, freedom of flowering, and vigour of growth shown by the latest productions of the Begonia hybridist. Now the Begonia is one of the most valuable plants the gardener can plant for the embellishment of the flower garden during summer and early autumn.

The shades of colour that may be obtained are innumerable, and some are so daintily and delightfully blended as to make a description impossible. There are reds and crimsons of the richest, yellows of the brightest, whites of the purest, roses of the rosiest, and probably one will soon be able to say blacks of the blackest. There is probably no other plant so beautiful in itself, and at the same time so useful for summer gardening, as the tuberous Begonia. The zonal Pelargonium and other bedding plants have to a large extent given way before its uninterrupted progress, and instead of the old riband borders of red, white, and blue we now see masses of Begonias, the large shapely flowers borne high on strong stalks, providing a continuous display of beautiful flowers in a great variety of colours from June to October, and thus giving the planter full value for his money at considerably less trouble.

In Messrs. Sutton's nursery at Reading several houses, which form part of the fine range of glass erected some two years ago, are full of tuberous Begonias, and quite recently they were making a grand display. You could not find a flower of bad form among them. They are all grown for seed only, and are the result of years of careful selection and skilled hybridisation. There were singles and doubles, fringed and crested, in some lovely shades of colour. The flowers were large and bold, held up by stout, vigorous stems, so that none were lost to view. All added to the display, and probably the reason of its being exceptionally good might be found in the fact that each flower was well displayed. The great fault of the tuberous Begonias of some years ago was that the flowers were produced on drooping stalks, and one of the chief aims of the hybridiser has been to strengthen these. How he has succeeded is well shown by the plants in Messrs. Sutton's collection.

In selecting a few varieties for special notice we should mention Sutton's Queen of the Whites, one of the finest single white Begonias yet raised. It is of elegant habit, the flowers are large, pure white, and of splendid form and substance. Giant Scarlet has enormous orange-scarlet flowers, and makes an excellent companion to Queen of the Whites. Rosy Queen bears rich ruby-rose flowers of good form, that may be relied upon to give satisfaction either in the greenhouse or out of doors. Then there are various shades of colour represented in the Reading Beauty strain, *e.g.*, crimson, scarlet, white, pink, yellow, blush, orange, &c. All these are single flowers of great beauty. Sutton's Fringed and Sutton's Crested will commend themselves to those who are fond of these forms. The former carry their flowers well above the foliage, and they are rendered still more attractive by the prettily fringed petals. The crested section comprises crested, bearded, and fringed flowers that give welcome variety; even those who do not care for their form can hardly fail to admire the colouring.

There are many beautiful things among the double Begonias also. Of fibrous-rooted sorts we may mention Miniature Bedding, a miniature sort which may be had in crimson, white, or pink. They are invaluable as an edging to beds or borders, for the flowers are produced in great profusion. Crimson Gem is the most attractive Begonia of the semper-florens type. Reading Snowflake has pure white flowers twice the size of those of semper-florens, while Fairy Queen is a charming little sort in pink and white; it comes quite true from seed, and flowers with great freedom in the open throughout summer and autumn.

There were many other interesting plants in flower in the Reading nurseries when we saw the Begonias, and among them the Pentstemons. Messrs. Sutton's large flowering varieties, of which we give an illustration, deserve special mention. The colours are pure and good, the result of careful selection, and they bloom throughout a long period. The large Gloxinia-shaped blooms range in colour through white, pink, rose, crimson, to mauve and purple. While writing of Pentstemons we might also draw attention to Sutton's Dwarf Blue as an attractive and useful little plant for a colour scheme in the herbaceous border. It is dwarf and perennial, bearing long spikes of bright blue flowers.

OBITUARY.

MR. FREDERICK G. LLOYD.

WE hear with great regret of the sudden death of Mr. Lloyd, Langley House, Langley. We will remember his interesting Rose garden and his work as a member of the council of the Royal Horticultural Society. Mr. Lloyd was a part proprietor of the *Daily Chronicle* Paper Mills, but we believe that of recent years his thoughts were centred upon horticulture, his work as an official of the Royal Horticultural Society and photography. Few men were better known or more highly respected in Buckinghamshire, as shown by the fact that Mr. Lloyd was High Sheriff of the County in the Coronation year and a Justice of the Peace.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THERE was a splendid show of shrubs, flowers, fruits, and vegetables at the Royal Horticultural Hall on Tuesday last, quite the best exhibition held there, with the exception of the fruit show. Awards were given to several new Orchids and other flowers, and to one new fruit. In the afternoon the Rev. Professor Henslow gave a lecture, illustrated by limelight views, upon "Geographical Botany as a Result of the Adaptability of Plants."

ORCHID COMMITTEE.

Present: Mr. H. Little (chairman), James O'Brien, de B. Crawshaw, H. M. Pollett, J. Wilson Potter, F. W. Ashton, W. B. Hall, W. H. Young, J. W. Odell, A. A. McBean, G. F. Moore, H. Ballantine, W. H. White, J. Charlesworth, J. Douglas, Walter Cobb, W. Bolton, F. Sander, W. A. Bilney, H. A. Tracy, Francis Wellesley, R. Brooman White, and F. J. Tignor.

The group from Messrs. Charlesworth and Co., Heaton, Bradford, was full of good things, and made an extremely attractive display. The most noticeable feature was a mass of *Cattleya Mantinii nobilior* (*bowringiana* × *aurea*), a handsome flower of medium size, with deep rose-purple sepals and petals, and purple lip lined with gold. *Lælio-Cattleya Cappelii* (*L. cinnabarina* × *C. gigas*), with apricot-coloured sepals and petals and crimson lip, made a brilliant bit of colouring here and there, and so did *Cattleya Iris* (*bicolor* × *aurea*), *Lælio-Cattleya callistoglossa*, and others. Among the many good plants we might specially mention *L.-C. Ascania*, *Miltonia Bleuana*, *C. aurea*, *C. Fulvescens*, *C. F. W. Wigan*, *Brasso-Lælia purpurato-digbyana*, *Brasso-Cattleya Warnerii-digbyana*, *C. Germanica* (*schofieldiana* × *hardyana*), and *C. labiata* *Lowie*. *Vanda corulea*, bearing some rich blue racemes of flowers, was very beautiful. Gold medal.

Messrs. James Veitch and Sons, Limited, Chelsea, showed some beautiful *Lælias*, *Cattleyas*, and *Lælio-Cattleyas*. They comprised *Cattleya labiata*, *C. Mantinii*, *C. Minerva*, *C. Mrs. J. W. Whiteley*, *Lælia juvenilis*, *Lælio-Cattleya bletchleyensis*, *L.-C. Clonia*, and *L.-C. Lady Rothschild*. *Cattleya Mantinii* (*bowringiana* × *dowiana* var. *aurea*) is a beautiful flower, with rich rose-purple sepals and petals and purple lip, streaked in the centre with gold. *Odontoglossum grande* was well shown by Messrs. Veitch. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, showed some very choice Orchids in their group. *Cattleya bowringiana* var. *lilacina* is very distinct and beautiful; it has deep lilac sepals and petals and lip, and the latter is tinged with violet. *Cattleya Mrs. J. W. Whiteley*, *C. amabilis*, *C. F. W. Wigan*, and *Lælio-Cattleya Herga* var. were some of the best hybrids shown. *Cypripedium Prince Humbert* (*mastersoniana* × *niveum*) is a beautiful flower, the petals and lip deeply tinged with rose; and *Cycnocheilus chlorochilon*, a remarkable one, the sepals and petals green, and the lip cream coloured. Among other good things were *Cypripedium Mme. de Curte magnificum*, *C. Persephone*, *C. Rainbow*, *C. aureum* var., and *C. tessellatum* (*concolor* × *barbatum*). Silver Flora medal.

Mr. Cypher, Cheltenham, displayed a very bright group of Orchids in variety. *Dendrobium Phalenopsis chröderianum* made a beautiful centre, and was flanked by *Cypripediums*, *Cattleyas*, &c. Among the *Cypripediums* were *C. insigne* *Sander*, *C. i. Perfection*, *C. Maudie*, *C. Mrs. W. Sutton*, and others. *Cattleya Mantinii* was well shown, and so was *C. labiata*. *Dendrochilum cobbianum*, *Cymbidium winnianum*, and *Cattleya schofieldianum* were also in this group. Silver Flora medal.

Among the Orchids shown by Messrs. Hugh Low and Co., Enfield, were some good *Cattleya bowringiana* *Low's* variety, *C. labiata*, *C. gaskelliana*, *C. Mantinii*, and *Lælia pumila*. *Cattleya speciosissima*, *C. Maronii*, *Masdevallia tovarensis*, *M. Pourbaixii*, *Warszewiczella wailesiana*, and *Oncidium incurvum album* were other interesting ones in this group. Silver Banksian medal.

The Hon. W. Rothschild, Tring Park, Tring (gardener, Mr. Dye), exhibited a collection of *Masdevallias* and other small-flowered Orchids. Among the former were *M. macrura*, *M. Fraseri*, *M. melanoscapha*, and *M. coniculata*. Other Orchids comprised *Lælia macrostachya*, *Bulbophyllum carryanum roseum*, *Phalenopsis Lowi*, and *Orchidium Sophronitis*. Silver Banksian medal.

M. Ch. Vynsteke, Lochristi, near Ghent, exhibited some beautiful spotted *Odontoglossums*. They were chiefly forms of *O. ardentissimum*, *O. bellatum*, and *O. harryo-crispum*. Vote of thanks.

Messrs. Staaley and Co., Southgate, N., made an attractive display with *Cattleya labiata* var. *autumnalis*. The

flowers were large, of good colouring, and freely produced. Other *Cattleyas* included in the group were *C. S. Gilles* (*Patrocinii* × *aurea*), *C. wendlandiana* var. *superba*, and *C. Mary Gratrix* (*Harrisonæ* × *schofieldiana*). Silver Banksian medal.

The group of *Cattleya labiata* from Leopold de Rothschild, Esq., Gunnersbury Park (gardener, Mr. Reynolds), made a pretty display. There was considerable variety of colouring among the flowers, and some of the plants were splendid specimens, bearing quantities of blooms. Silver Banksian medal.

A small group of Orchids from J. Bradshaw, Esq., Southgate, N. (gardener, Mr. Whitelegge), contained *Cattleya labiata*, *L.-C. Ascania*, *C. Iris*, *C. Mrs. J. W. Whiteley*, *Miltonia Bleuana*, *Lycaste Skinneri* *alba*, and *L. S. Fairy*, all plants of much beauty. Silver Banksian medal.

Bulbophyllum Weddellii, shown by Mr. Moore, Botanic Gardens, Glasnevin, Dublin, was given a botanical certificate.

Mr. H. A. Tracy, Twickenham, showed fifteen plants in flower of *Cypripedium spicerianum* raised from seed.

NEW ORCHIDS.

Cypripedium F. K. Sander.—This is a handsome flower, the result of a cross between *C. Annie Measures* and *C. bellatum giganteum*. The broad dorsal sepal and the large petals have a creamy white ground colour, which is heavily spotted with crimson. The spots are in places so numerous as to form irregular lines. The lip is long and pointed, white, with numerous small dots. From Messrs. Sander and Sons, St. Albans. First-class certificate.

Brasso-Cattleya Princess Victoria.—A large and most attractive flower, white, with a suffusion of green throughout, but least noticeable in the petals. The large lip is beautifully fringed, white at the margin and having a green throat, which is marked with green lines beneath the column. The parents of this hybrid are *Cattleya-Mossie Wagneri* and *Brassavola digbyana*. From Messrs. Charlesworth and Co., Heaton, Bradford. First-class certificate.



THE LATE MR. FREDERICK G. LLOYD.

Cattleya Iris var. *Fascinator*.—This is a very handsome form of the hybrid *Cattleya Iris* (*bicolor* × *aurea*). The sepals and petals are rich apricot coloured, while the margin is yellow. The flat lip has a yellow ground, which, however, is so heavily suffused with crimson as almost to be hidden. From Messrs. Charlesworth and Co., Heaton, Bradford. Award of merit.

Cattleya Rosa Leemann.—A very beautiful flower, the result of a cross between *Cattleya amethystoglossa* and *C. aurea*. The broad spreading lip is richest purple, the sepals are dull yellow, dotted with purple, while the petals although of a similar shade are most beautifully suffused with purple, especially at the margins. From Messrs. Charlesworth and Co., Heaton, Bradford. Award of merit.

Cypripedium King Edward VII.—A very handsome hybrid between *C. rothschildianum* and *nitens magnificum*. Three flowers were borne on one stem by the plant exhibited. The dorsal sepal is heavily spotted with crimson-black upon a light green ground, against which it has a striking effect. The petals and lip are red-brown. From F. W. Wellesley, Esq., Westfield, Woking. Award of merit.

Cypripedium callosum Sanderæ Hye's variety.—A very beautiful form of this valuable Orchid. The dorsal sepal has a pure white ground, and is heavily lined with green, and the petals are also lined with green. The association of white and green is most effective. The pouch is pale yellow. From Messrs. Sander and Sons, St. Albans. Award of merit.

Cattleya Portia Chardwar var. —A cut raceme was shown by Mr. G. F. Moore, Chardwar, Gloucester, but we were unable to find it.

FRUIT COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. J. Cheal, James Gibson, J. McIndoe, S. Murrimer, Alex. Dean, W. Fyfe, H. Parr, P. C. M. Veitch, G. Kist, T. W. Bates, J. Lyce, J. Jaques, Owen Thomas, G. Reynolds, F. Q. Lane,

J. Willard, George Woodward, James H. Veitch, George Wythes, W. Poupert, A. H. Pearson, and the Rev. W. Wilka.

An exhibit of fruit grown in British Columbia was shown by the Agent-General, Salisbury House, Finsbury Circus, E.C. The fruits had been packed for five weeks, and had travelled 3,000 miles by train and 3,000 miles by boat. On the whole they were firm and fresh, and their condition evidenced the careful packing they must have had. Among the best were *Blenheim Orange* (finely coloured), *Vandervere*, *Northern Spy*, *Gravenstein*, *Wealthy*, and *Blue Pearmain*. Of Pears *Beurré Clairgeau*, *B. Diel*, and *B. d'Anjou* were excellent. A dish of *Plum Grand Duke* was exhibited. A very large and handsome Apple called *Wolfe River* was given a cultural commendation. In colour it resembles *Hoary Morning*. A gold medal was awarded to this exhibit.

Mr. E. Neal, gardener to J. A. Nix, Esq., Tilgate, Crawley, exhibited a good collection of Apples and Pears, the Apples being finely coloured. *Tyler's Kernel*, *Cornish Gilliflower*, *Dutch Mignonne* (very good), *Allington Pippin*, *James Grieve*, *Ribston Pippin*, *Lady Sudeley*, and *Worcester Pearmain* were the best of the dessert sorts, and among cooking varieties *Chelmsford Wonder*, *Golden Noble*, *Ecklinville*, *Lord Derby*, *Tower of Glamis*, and *The Queen* were best represented. The *Nectarine Peach*, *Plums Reine Claude de Bayay* and *Coe's Golden Drop*, and Pears *Mme. Trevey*, *Beurré Superfin*, *Beurré Bose*, *Doyenné Boussouch*, and *Doyenné du Comice* were excellent. Silver-gilt Knightian medal.

Mr. George Woodward, The Gardens, Barham Court, Maidstone, exhibited a grand display of hardy fruits, that commanded general admiration by their excellence. Kent is far-famed as a fruit-producing county, and the specimens shown by Mr. Woodward would have been hard to beat. It is useless almost to mention individual fruits when all the best known sorts were represented, but we thought Apples *Tyler's Kernel* and *James Grieve* particularly fine among this collection. Silver-gilt Knightian medal.

A collection of fruit was exhibited by the Horticultural Department of University College, Reading. Apple *Peasgood's Nonesuch* was very fine; *Gascogne's Scarlet* was well coloured, though rather small; *Ribston Pippin* and *Blenheim Orange* were very good; *Pear Durondeau*, *Pitaston Duchess*, and *Conference* were also good.

Mr. W. Howe, gardener to Lady Tate, Streatham Common, showed six very good bunches of *Alicante Grapes*. The total weight of the six bunches was 26lb. Silver Knightian medal.

Mr. J. George, 14, Redgrave Road, Putney, showed *Mushroom spawn*.

Messrs. W. J. Brown, Stamford, exhibited a table filled with Apples and Pears, *Roses*, *Paragoniums*, &c. Apples *Peasgood's Nonesuch* and *Allington Pippin* were very good, and the bunches of *Roses* were fresh.

Messrs. H. Cannell and Sons, Swanley, Kent, exhibited their *Cabbage Cannell's Defiance*, and some fine bulbs of *Onion Cranston's Excelsior*. Silver Banksian medal.

Some very fine *Pitaston Duchess* Pears were shown by F. Leverton Harris, Esq., M.P., Camilla Lacey, Dorking (gardener, Mr. McDonald). Cultural commendation.

Several seedling Apples were shown before this committee, but none of them obtained an award. The one thought most highly of was *Ellison's Orange Pippin*. This is a cross between *Cox's Orange Pippin* and *Calville Blanc*. As showing its remarkable fertility the Rev. C. C. Ellison, The Manse, Bracebridge, who raised and exhibited it, wrote that in 1899 he grafted seven trees of *Hobbert's Victoria* with six *Cox's Orange Pippin* and one *Ellison's Orange Pippin*. In 1904 the six *Cox's Orange* produced three fruits and the one *Ellison's Orange* produced forty-eight fruits.

Another good Apple was *H. Ballantine* (*Peasgood's Nonesuch* × *Edmund's Pippin*) from Messrs. James Veitch.

Mr. G. Wythes, Syon House Gardens, Brentford, showed a new late *Melon* of very good flavour, but no award was made.

The Horticultural Department of University College, Reading, exhibited an excellent collection of vegetables, neatly and effectively arranged. Mounds of *Savoys*, *Brussels Sprouts*, *Cauliflower*, and *Celery* formed a background, while *Potatoes*, *Tomatoes*, *Carrots*, *Celeriac*, &c., filled the front. Of varieties, *Cauliflower Walcheren*, *Broccoli Veitch's Self-protecting*, *Onion Sutton's Al*, *Potatoes King Edward VII.*, *British Queen*, *Sir J. Llewellyn*, *Reading Russet*, *Evergood*, *Factor*, and *Tomato Polegate* were of the best. Silver-gilt Knightian medal.

Mr. J. F. Williamson, Summerhill, Mallow, Cork, exhibited a good display of *Potato Duchess of Cornwall*, the variety famous for its large yield. Silver Banksian medal.

Messrs. Bakers, Wolverhampton, had a splendid display of *Potatoes*. One hundred varieties were represented, one basket of each being shown. Most of the new and sensational varieties were included, and good tubers of them were shown. The exhibit was attractively arranged, a matter that is not easy of achievement. Among the coloured varieties were *Herd Laddie*, *Lord Beaconsfield*, *Edgecote Purple*, *Vicar of Saleham*, *Prizetaker*, and others. Silver-gilt Knightian medal.

NEW FRUIT.

Bullace The Langley.—This fruit is the result of a cross between *Damson The Fairleigh* and *Plum Black Orleans*. It is much larger than the *Damson*, purple, and with a good bloom. This will doubtless prove a most useful orchard fruit. From Messrs. James Veitch and Sons, Limited, Chelsea. First-class certificate.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. H. B. May, James Walker, W. P. Thomson, E. H. Jenkins, James Hudson, J. Jennings, John Green, G. Reuthe, J. A. Nix, R. C. Notcutt, R. Hooper Pearson, George Nicholson, Charles Jeffries, C. Dixon, R. W. Wallace, H. J. Cuthbush, W. Cuthbertson, George Gordon, Charles E. Pearson, W. J. James, George Paul, Charles E. Shea, Charles Blick, C. J. Salter, W. Howe, and J. F. McLeod.

Mr. Norman Davis, Uckfield, set up a group of *Chrysanthemums* arranged in bold and striking manner. In the more prominent positions Miss Mildred Ware appeared to advantage, a dozen or more handsome flowers displaying

this sort perfectly. Other things of note were the white Japanese Mrs. C. Beckett, very fine; Marshal Oyama, bronze; Henry II., Miss Mona Davis, white, novelty for 1905; Afriston, crimson and gold, &c. Palms and Ferns were freely introduced in the arrangement. Silver-gilt Flora medal.

Messrs. T. S. Ware, Limited, Feltham, had a mixed group of hardy flowers, in which Violas, Michaelmas Daisies, Delphiniums, hardy Cyclamens, Phloxes, Stokesia carynea, Phytolacca decandra, the Japanese Anemones, such as Whirlwind, Queen Charlotte, and other like things were seen.

Mr. Godfrey, Exmouth, showed excellent examples of Chrysanthemums, notably Triumph, Loveliness, Mrs. J. P. Bryce, Mrs. George Nicholson, and the fine golden-yellow Britannia. Silver Banksian medal.

An extensive arrangement of hardy flowers was set up by Messrs. William Cutbush and Son, Highgate, in which Michaelmas Daisies in great variety played an important part. A new white, White Bedder, not a foot high, is a capital plant. Japanese Anemones, Tritomas, Colchicums, Montbretias, the early-flowering Chrysanthemums, some beautiful Aster Amellus, fine pans of Crocus zonatus, and Cimicifuga simplex were also shown. Another group from this firm was of Tree Carnations in pots. Silver Flora medal.

Messrs. Peed and Sons, West Norwood, staged a very pretty group of Chrysanthemums on the door, and with Crotons and Palms a good effect was secured.

Leopold de Rothschild, Esq., Gannarsbury House (gardener, Mr. Hudson), had a group almost entirely of yellow Chrysanthemums Soleil d'Octobre and Horace Martin. Of the latter three giant specimens were shown, having a diameter of some 8 feet and simply smothered with blossoms. These splendid examples were in tubs. Silver-gilt Flora medal.

Messrs. J. Waterer and Son, Limited, Bagshot, Surrey, showed some sixty different shrubs, conifers, &c., plants of moderate size and general usefulness. The compactness of the plants left nothing to be desired. The rich colouring of the Acers was very fine. Bronze Flora medal.

Mr. H. B. May, Edmonton, had a very fine exhibit of Crotons in 108 varieties. Arranged on the floor with ample space the good colouring and general beauty of the plants commanded attention at a glance. Some of the newer sorts are Elysian, with twisted leaves; Regalis, drooping; Mrs. H. B. May, green and gold; Silver King, and Golden Ring. A basket of a new pink double-flowered Pelargonium C. T. Lawrence was also shown. Silver-gilt Flora medal.

Lady Tate, Streatham Common (gardener, Mr. Howe), contributed a group of Crotons of giant size, together with Alocasias, Dracaenas, and other plants. Callicarpa purpurea was noted in fruit. Silver Banksian medal.

Mr. L. R. Russell, Richmond, filled a long table with Aucuba vera, Skimmia japonica, S. fragrans, Pyracantha Lelandi, and other such plants. The variegated Veronica Andersoni was freely shown, and with Persea a good display of fruiting shrubs was made.

Messrs. William Bull and Sons, Chelsea, had a small and interesting exhibit of stove and greenhouse plants in variety.

H. J. Elwes, Esq., Colebourne (gardener, Mr. Walters) sent a charming lot of Nerines, of which two received the award of merit—Miss Shelley, pink, and Lady Folkes. Other notable things were Miss Carrington, Princess of Wales, Countess Ethurst, and Miss Willmott, scarlet. Silver Banksian medal.

A large assortment of cut shrubs was shown by Captain Holford, Tetbury (gardener, Mr. Chapman), in which Oaks, Acers, Crataegus, Roses in fruit, Pernettyas, Rhos, Viburnums, Hippophae rhamnoides, and many more were freely shown. The collection covered an entire table and received the silver Flora medal.

Some good plants of Amasonia panicea, the pale yellow flowers and scarlet bracts very effective, were shown by Mr. Leopold de Rothschild, Gannarsbury.

Messrs. Gunn and Sons, Olton, Birmingham, had an extensive lot of early Chrysanthemums in which Currie, yellow; Horace Martin, Roi des Blancs, Coral Queen, Goacher's Crimson, White Quintus, Meduce, pale orange; Ralp Curtis, white, were shown among many more.

Messrs. Hugh Low and Co., had a small set of Tree Carnations and their new Smilax, Medeola asparagoides myrtifolia, a very fine leaved form, figured in THE GARDEN some months ago.

Mr. George Prince, Longworth, Derks, showed some beautiful Roses, e.g., Frau K. Druschki, Pink Maman Cochet, Reve d'Or, Marie van Houtte, Papa Goutier, White Maman Cochet, and Corallina. No group was more admired. Silver Flora medal.

Messrs. W. Wells and Co., Redhill, had a magnificent group of Chrysanthemums of all sections, many of the large-flowered kinds were especially noteworthy. Earlies and bush-grown plants were plentiful and well grown. The group was not only one of the most extensive but one of the best seen for a long time. A few of the best kinds were Miss Elsie Finton, Miss Mildred Ware (rosy cerise), Merstham Red, Mrs. J. A. Miller (reddish terra-cotta, a massive flower), W. A. Etherington (silvery mauve), and Mrs. J. P. Bryce (a magnificent pure white). Of the incurving section of Japanese are some of the more prominent in a really wonderful lot. Gold medal.

Messrs. Dobbie and Co., Rothesay, staged a large collection of early-flowering varieties of Chrysanthemums, the group including all the best in commerce.

Messrs. Cannell and Sons, Swanley, contributed an excellent lot of zonal Pelargoniums, Countess of Hopetoun, Lady Warwick, Prince of Orange, Queen of Italy, Mary Melton, and Mrs. Simpson. Some good Chrysanthemums were also shown by the same firm. Silver Banksian medal.

Cut shrubs in v. riety came from Messrs. J. Cheal and Sons, Crawley, Azaleas and Quercus coccinea splendens being remarkable for the colouring. The Golden Oak (Q. concordia) was also in good form.

Messrs. Veitch and Sons, Chelsea, sent a splendid collection of Nephenthes. The plants were finely displayed and in per-

fect conditions. Some of the best were N. Veitchi, N. mixta sanguinea, N. dicksoniana, N. wrigleyana, N. Curtisi superba, and N. Sir W. T. Thesilton-Dyer. Bonvardias in variety, beautifully grown; Leonotis Leonurns, with heads of orange-red flowers, and Begonia Mrs. Heal were all well shown in groups by the same firm. Gold medal.

Mr. Amos Perry, Winchmore Hill, had a fine group of Senecio pulcher and Saxifraga Fortunei, the latter not often seen in such good form.

Messrs. Barr and Sons, Covent Garden, had a small group of hardy plants in variety, Aster Amellus being conspicuous.

Messrs. Paul and Sons, Chesnut, staged a fine group of Roses. Papa Goutier, Sunrise, Viscountess Folkestone, Frau K. Druschki, Corallina, and Caroline Testout were all well shown. Silver Banksian medal.

Roses were well shown by Messrs. Frank Cant and Co., Colchester. Corallina, Sulphurea, Marie van Houtte, Viscountess Folkestone, Maman Cochet, Mme. J. Dupuy, G. Nabonnand, Gustave Regis, Safrano, and Souv. de Catherine Guillot were among the best vases in a very beautiful lot of flowers. Silver Flora medal.

A primrose-yellow sport from Market White Chrysanthemum came from Mr. E. Wallace, Eaton Bray Nurseries, near Dunstable.

From Southampton Mr. Ladhams brought Lobelias and perpetual-flowering Pinks Florence and Marion.

Mr. John Jeffries, Cirencester, brought a small collection of choice conifers and shrubs, such genera as Taxus, Abies, Cupressus, Ilex, and others being freely represented. Silver Banksian medal.

A most imposing array of Chrysanthemums came from Mr. H. J. Jones, Lewisham, the arrangement consisting of large vases, epergnes, and large show boards. All of these were filled by show and other meritorious kinds, and were supported on each side by the more decorative sorts. Henry Perkins, reddish crimson; Mrs. J. Duoo, pure white; Mrs. R. C. Pulling; Phillip du Cros, scarlet-red, tinted gold; Mand du Cros, yellow; Mrs. G. Judge; Edith Smith, creamy white; Mary West, yellow, shaded bronze, &c. Silver-gilt Banksian medal.

NEW PLANTS.

Nephenthes F. W. Moore.—Handsome and distinct. The rim of the medium-sized pitchers is rosy crimson and very striking. From Messrs. Veitch and Sons, Chelsea. First-class certificate.

Aconitum Wilsoni.—A very showy perennial, free, and profuse and continued flowering. The established plant is 5½ feet high, the blossoms blue. From Messrs. Veitch and Sons, Chelsea. Award of merit.

Nerine excellens major tardiflora.—A most distinct form, the flowers of which may almost be likened to a small-flowered Belladonna Lily, although the shade of colour is rather paler. The plant is 2 feet high, the blossoms borne on 3-inch pedicels and nearly horizontal, segments widely separated and giving a diameter of more than 3 inches to each flower. From Messrs. R. Veitch and Sons, Exeter. Award of merit.

Rhus cotinoides.—A fine-leaved plant for autumn effect. The broadly ovate leaves are entire and of a ruddy tone. Award of merit.

Coriaria terminalis.—Fruiting branches of this well-known plant were shown. The fruits are yellow, and of the size of a large Red Currant. The bunches of fruits are cylindrical in outline and about 4 inches long, and, depending on slender branches, render the plant most attractive at this season. Award of merit. Each of these were shown by Messrs. R. Veitch and Son, Exeter.

Begonia Pearley Sanders and *Begonia Mrs. H. G. Moon* are two of those beautiful hybrids, having B. bowringiana and B. Rex variety as their parents. Olive green, red, and maroon predominate in markings of the handsome leaves. These were from Messrs. Sander and Co., St. Albans, and each received an award of merit.

Nerine Lady Folkes.—A rather dwarf sort, with flowers of a deep rich carmine. Very striking and effective.

Nerine Miss Shelley.—In stature and other ways this much resembles the Fothergill section; it may be said to be a pink-flowered form of it. The tone of colour is very pleasing. These were from Mr. H. J. Elwes, Cirencester, and each obtained an award of merit.

Helianthus sparsifolia.—This is stated to be a hybrid between H. rigidus and H. californicus, the blossoms resembling the former, and the foliage to some extent the latter. It is a tall growing and effective plant. From Messrs. Cannell and Sons, Swanley. Award of merit.

Sternbergia lutea major.—It is curious when we remember how often this plant has been shown, and in much better condition than on the present occasion, that the award it so well merited has been so long in coming. In its best form it is one of the finest of autumn bulbous plants, and the glistening golden cups are most effective. From Messrs. Barr and Sons, Covent Garden. Award of merit.

Chrysanthemum Mrs. D. W. James.—This is a Japanese incurved, chestnut terra-cotta, with old gold reverse, one of the brightest in this shade; flowers of large size and finely formed.

C. E. J. Brooks.—A Japanese incurved, rich plum colour, with white reverse; a monster flower as round as a ball, foliage and stems splendid.

C. Mrs. William Knox.—Rich deep yellow, with a faint tinge of bronze; said to be most easy of cultivation, developing well under quite ordinary treatment.

C. Goacher's Pink belongs to the early-flowering section, and may be described as an advance upon those of its shade now grown.

C. Jenny, also an early flowering kind, but of the Pompon class, with round, perfectly formed flowers of a bright orange shade. These five kinds were from Messrs. W. Wells and Co., Redhill, and each received an award of merit.

C. Mrs. Chas. Beckett.—There is certainly an ample supply of pure white kinds, but there must ever be room for such a magnificent thing as this. Purest white, broad drooping flowers, and a massive head that compels admiration. From Mr. N. Davis, Framfield. Award of merit.

C. Perle Rose.—A very free-flowering September kind with perfect habit. From Messrs. Cannell and Sons, Swanley. Award of merit.

C. Miss Dorothy Oliver.—A reflexing Japanese of the largest size, the petals broad, and of a bluish or lilac-purple tone. From Mr. G. Mileham, Leatherhead. Award of merit.

C. Edith Smith.—A creamy white Japanese, the shapely broad-shouldered flower of large size and very striking. A very handsome variety. From Mr. H. J. Jones, Lewisham. Award of merit.

DUSSELDORF INTERNATIONAL FRUIT SHOW.

OF the series of shows in connexion with the Dusseldorf Fine Art and Horticultural Exhibition, the International Fruit Show, held on October 16 to 19, is important. Tons of Apples and Pears in good condition filled eight of the spacious buildings, but the Grapes were not proportionately good. The idea of the Pomological Society was to call together from all parts of the Empire not only gardeners and fruit growers, but fruit farmers, foresters, and heads of provincial fruit societies, and by a series of lectures, comparison of notes, and exhibits to find out what can be produced, and to give a greater stimulus to fruit growing in every branch. The one class that interested me most was that of provincial collections of Apples and Pears grown on standards, for planting at the sides of highways or divisions of fields. This way of utilising waste spaces has been the chief hobby of the various great agriculturists and horticulturists for the last twenty years, and has grown until it has become a part of a great national industry. The finest collections in this class came from the "Highlands of Westerwälder" (Hessen) and "Land Kreis Wiesbaden." Most of the horticultural schools were represented, that of "Geisenheim a Rhein" having a very fine collection of fruit with arrangement of plants, &c.

At the end of the building was a very imposing group of Apple trees in pots from the Imperial Garden at Potsdam, chiefly Calville Blanc, of which some thousands are grown. Single dishes were staged in great quantities. Gravensteiner 250 times, and Winter Gold Pears in 180 times, will give an idea what difficult work the judges had before them. In the international division, the pavilion was given over entirely to the Austrian Tyrol and Bohemia, and from there were staged many perfect fruits in the single dishes and packed for market; the same finish was maintained throughout. The Swiss fruits were also very fine, being packed in baskets of green and white wicker-work, which produced a very pleasant effect.

The large flower palace was chiefly devoted to the exhibits from France and Holland. In the entrance a large wedge-shaped table was filled with a floral and fruit display by M. Joret of Paris, including Apples, Pears, and Peaches in the finest condition. An exhibit that attracted most attention was from A. Cordonnier et fils, Grapperies du Nord, Bailien, North France. Under massive glass cases was a splendid collection of Grapes—excellent bunches of Canton Hall Muscat, Muscat of Alexandria, Alicante, and Gros Colmar, and an interesting group of ten new seedlings. Buckland Sweetwater X Alicante had a distinct blue shimmer in the yellow, which is not very tempting, but it may result in a good flavour and thin skin.

The best collection of Apples and Pears in the whole show was exhibited by the Horticultural Society of Montreuil-sur-Bois. It consisted of about 150 dishes, and covered at least 70 yards of space. Semi-circular stands were used as a background, a few Cyclamens helping to take off the formality and give variety in colour. Two large tables were filled with an exhibit of Grapes and Peaches from the Netherland Union of Grape Growers, Westlandia. They were chiefly Alicante and Colmar. The bunches were not large, but the quantity had an imposing effect. Prizes were given for packing Grapes, Messrs. Salomon et fils, Thomery, staging large quantities, chiefly Chasselas Doré. I thought it rather a pity that English firms were not among the competitors, but, as a member of the committee remarked, "You Englishmen only go where you can make business."

E. W. G.

KIDDERMINSTER HORTICULTURAL SOCIETY.

THE following is the annual report of this excellent society: "In presenting the sixth annual report and balance sheet of the Kidderminster and District Horticultural Society, it is with much pleasure and satisfaction that we are able again to record the substantial success of our society, both numerically and financially, our total membership being now about 250. The committee are also pleased to report a most successful year's work, and feel confident that during the past session much has been accomplished in the way of fostering and encouraging an interest in the various branches of horticulture in the town and district. The lectures given have been of a specially attractive and instructive character, and have been very well attended. Four shows, in addition to the annual Chrysanthemum show (the arrangements for which have been taken over by the society), have been held during the year, which have done much to stimulate practical work among the members, and at the same time have afforded a source of instruction and pleasure to a considerable number of appreciative visitors. The exhibits at all the shows have been of a very high order of merit. Visits have been paid during the year to the gardens of Madresfield Court, by kind permission of Earl Beauchamp; also to the gardens of Impney, by kind permission of Dr. Corbett; and these were in each case much appreciated by a considerable number of visitors and friends. With the object of beautifying and relieving the sombre appearance of our streets, prizes have been offered in a competition for the best floral window display during the summer. The matter, however, was not taken up by the residents to the extent the committee hoped for; they trust more interest may be shown in this laudable object in future. The report is signed by H. de B. Gibbins, Litt. D. (chairman), and William C. Sadler (secretary). The balance at the bank is nearly £30.

THE GARDEN

No. 1719.—VOL. LXVI.

[OCTOBER 29, 1904.]

ROSEMARY.

FROM a certain vantage point in our garden an opening in the Rhododendrons discovers an exquisite glimpse of meadow-land and wood, with here and there a red-roofed homestead, and beyond a goodly stretch of the changeful sea. In and out amongst the pastures winds a road which we, who know it, can trace by its bordering hedgerows, but now and again the sandy highway to the sea shows bright and clear against the greenery, and gives a touch of human interest to the scene. Locally this road goes by the name of Rosemary Lane—it is even to be found so named in the Ordnance maps—yet it is not associated, in any apparent way, with our garden Rosemary, whose name is almost as much of a riddle as that of our lane. Going back to derivation, however, we get an interesting side-light of meaning.

Rosemary is one of the oldest of our garden shrubs, but it is not native-born. Its home was on the sunny sea-board of the Mediterranean, and it was carried thence to our shores—probably as physic merchandise—in very early times. But in those days Rosemary was known as Rosmarine, or, in old French, Romarin. It may be found so-called in English literature of the fourteenth century—Rosmarine, the bush of the sea-spray. And so we may be forgiven if we link our pretty road to the same name-germ, and think of it as the lane of the sea-dew, while we watch, as often we may, the warm sea mist sweeping across the flats or wrapping the uplands in the fleecy clouds of dew which help to keep our countryside green and flowery long after autumn frosts, further inland, have mown down the late summer laggards.

But in process of time the word was clipped, as such words often become in familiar speech, and the final letters dropped away, leaving it Rosmari. And then, later on, popular sentiment stepped in, and—either on account of the incense breath of its leafage or the hue of its blue flowers, the Virgin's colour—dedicated the shrub, as so many other plants in those days were dedicated, and it became Rosemary, as it remains to this day. In truth, it has no more to do with a Rose than the rose of a watering-pot, which has the same name-root. Yet even as it stands dedicated to-day Rosemary dates back for many a century, nor does it seem any longer to crave the sea-spray for its well-doing, for—albeit a little tender in a

severe winter—it thrives in inland gardens just as well as by the sea. No English garden, indeed, ought to be without Rosemary. It is rooted in our history and in our literature, no less than in the rural customs of our everyday life. Tradition has it that Anne of Cleves, staking her life on a poor venture, wore sprigs of Rosemary in her wedding posy. The only luck it brought her, maybe, was to call to remembrance the strength of protecting and powerful friends which secured to her a safe asylum at Richmond instead of the fateful block on Tower Green. At any rate, here is direct evidence of the existence of an ancient custom. Two faithful virtues, constancy to the living and remembrance of the lost, have always been close entwined about the Rosemary branch which in the West Country we still

*"Grow for two ends, it matters not at all
Be 't for my bridall or my buriall."*

Rosemary is somewhat tender, as we know, but if a seed, for it comes far better from seed than from cuttings, can be coaxed to root into a crevice of an old sunny wall, it will wax strong and hardy, and no prettier way of growing it can be found than to let it shape itself, as it will by its own device. It likes the lime of the old mortar, and is far more aromatic in such scant harbourage as it can find for itself than when given the luxury of richer soil, but it must have sunshine.

Sometimes Rosemary may be seen covering the gable end of a cottage to the very eaves for with a little care and training it will reach a height of 15 feet or more. And then how the bees revel in the grey-blue flowers on a bright morning in early spring. For that reason alone bee-keepers do well to grow plenty of it for the excellent flavour which it will give to their honey.

We have seen in a country garden a simple archway made of rough Oak boughs clothed with Rosemary, which seemed a charming way of disposing it, but many a pretty idea can be carried out in a sheltered cottage plot which we fail to find answer when we come to try it in more spacious surroundings. In some way or other, however, we must find room for this good old bush, and it should be placed, not in some neglected out-of-the-way corner, but where it can be seen and approved. It is quite as appropriate for the stately terrace balustrade as amongst the herbs of the kitchen garden, or trained against a farmhouse porch. So have it we must, whether our lot be cast in castle or cot. For we miss some undertone of that hidden poetry of life which vibrates

through the common air we breathe, if we cannot, now and then, throw a Rosemary branch into the fire and let its fragrance awaken tender memories of the past, and even to stir within us nobler thoughts than we are wont to have of the faith and loyalty which wearies never, though Time steps on.

THE AUTUMN.

As I write the end of October is in sight, and yet after a touch of frost in the morning the day is bright and summer-like and the roads hard and dry. Indeed, it is some years since so fine a summer was followed by such a delightful October, and both gardeners and farmers have good reason to be thankful. Never perhaps have the autumn tints been more beautiful. Was there ever a finer autumn for flowers? I question it, for though in some places frost has blackened the Dahlias and nipped delicate plants, there is still an abundance of blossom, and the season of what are strictly speaking summer-flowering plants has been considerably increased. We still have Roses in abundance, and it is a pleasure on an October morning to be able to pick a velvety Prince Camille de Rohan or some other variety as perfect in form, if a little wanting in scent, as any of the blooms which came in July. While one section of the Chrysanthemum-loving community is interested in giant blooms for the November shows, another is enjoying the feast of flowers in the garden, for the Chrysanthemum outdoors has behaved admirably this autumn, and many a wayside garden is gay with varieties which were once favourites in the exhibition world.

Most of the hardy fruit has been gathered now, and this work has added much to the labour item during the past few weeks, but the weather has not only been admirable for ripening the fruits and imparting rich colour and high flavour, but owing to the absence of storms of wind most of the Apples and Pears hung on the trees till they were picked by hand. Considering the way trees in orchards and gardens were laden, there have been very few windfalls, and most of the fruits which fell to the ground were bored by the maggot of the codlin moth. On the other hand, wasps were a plague amongst the early fruits, while birds have also given trouble, and the worst of it is they always seem to select the finest specimens for their depredations. The trees, as well as the fruit, have benefited by the autumn sunshine, as may be observed by the healthy, ripe nature of the young wood, and the plump, prominent appearance of the fruit-buds. If these signs are anything to go by, Nature has done all she can not only to give a bountiful harvest this year, but to ensure a healthy promise for next.

Turning to the kitchen garden, conditions are equally satisfactory, for whereas last year

one had to wait week after week for a dry spell to lift the main crop Potatoes while the tubers were rotting wholesale in the ground, this season they have come out clean and dry, and if not entirely free from disease the losses through this evil are by no means great. Much disappointment was caused last winter through Onions failing to keep, but I look for no repetition of the trouble, as the autumn sunshine ripened up the bulbs on the ground, and harvesting was no matter for anxiety. Root vegetables have done well, and the quality of Carrots, Parsnips, and Beet is excellent, while in every garden almost there is a good supply of winter greens. Runner Beans are scarcely over, and those who took the trouble to trench deeply and manure liberally for their Peas have been rewarded with good late dishes. Lastly, the Tomato has proved a satisfactory outdoor crop when climatic conditions are favourable, for this plant has revelled in the sunshine, and even late fruits which we had little hope for ripened up on the stems.

Indeed, taking the kitchen garden from end to end, there is not much to complain about, and the fine autumn weather is favourable for lifting and storing crops, cleaning up, and putting things in order. Those who are anxious to be moving fruit trees and shrubs would like to see some rain now, as the ground is dry for the time of year, but on the other hand the open autumn is excellent for pushing on with the alterations which take place in many gardens at this season.

Finally, the splendid autumn weather is, to use a common expression, helping on the winter, which is always long and dreary enough, but when what is practically summer extends to November, some of the sting is taken out of the dull season which follows.

G. H. H.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 1.—Bournemouth Chrysanthemum Show (two days); Brighton Chrysanthemum Show (two days); Royal Horticultural Society's Show.

November 2.—National Chrysanthemum Society's Show at Crystal Palace (three days); Southampton Royal Horticultural Society's Show (two days); Highgate Chrysanthemum Show (three days); Lowestoft Chrysanthemum Show (two days); Portsmouth Chrysanthemum Show (three days).

November 3.—Weybridge Chrysanthemum Show; Colchester Chrysanthemum Show; Forest Gate Chrysanthemum Show (three days).

November 4.—Windsor and Eton Chrysanthemum Show; Battersea, Clapham, and Wandsworth Chrysanthemum Show (two days); Hinckley Chrysanthemum Show (two days).

November 5.—Batley and District Chrysanthemum Show; Loughborough Chrysanthemum Show; Penarth Chrysanthemum Show; North Lonsdale Chrysanthemum Show.

November 8.—Ipswich and East of England Horticultural Society's Show at Ipswich (two days); Dulwich Chrysanthemum Show (two days); Sevenoaks Chrysanthemum Show (two days).

November 9.—Buxton Chrysanthemum Show; Southend Chrysanthemum Show (two days); Stoke Newington Chrysanthemum Show (two days).

November 16.—Liverpool Horticultural Association Chrysanthemum and Fruit Show (two days).

November 17 and 18.—Grimsby Chrysanthemum and Fruit Society.

November 23.—Annual Dinner of the National Chrysanthemum Society, Mr. C. E. Shea in the chair.

"The Garden."—The next number of THE GARDEN will be largely devoted to matters of special interest to fruit growers. There will be

illustrations and descriptions of new fruits, famous fruit gardens, and a feature will be the selections of fruits for different purposes, e.g., for small gardens, large gardens, orchards, &c.

Royal Horticultural Society.—At the next meeting of this society, on Tuesday next, the Hon. Vicary Gibbs has kindly promised to lecture on "Planting for Winter Effect," and it is hoped that those who can will make exhibits of any plants bearing on the subject of the lecture.

The French National Chrysanthemum Society will hold its annual show and conference at Montpellier, on the 29th inst. and following days. There are eight items on the agenda, mostly dealing with manures, sports, carriage of plants and blooms to exhibitions, sterilisation of soil for Chrysanthemums, insects, and the proposed colour chart. Other Chrysanthemum shows in France will be held at Paris, Lyons, Le Mans, Elbouf, Fontainebleau, Besançon, Limoges, Amiens, Cherbourg, Havre, Troyes, Armentières, &c., several of which are by societies affiliated to the French National Chrysanthemum Society.

Chrysanthemum sports.—Why is a plant sport difficult to explain? A week or two since I observed in a trade paper an enquiry from a market grower respecting the reason why nearly one-half of his stock of the golden-yellow Horace Martin (a sport from Marie Masse) had produced pink flowers. The season previous his stock of several hundred plants was quite true. He planted this season 2,000 with the above result. A large number of growers will be sadly disappointed over the sport of Mrs. Barkley, sent out as Lady Cranston. The white flowered sport appeared in 1902, and the stock last season was eight plants, all true to the sport. The form of the flower was entirely changed, and the colour was pure white, prettily, but slightly, flushed on the crown (not the centre) with clear rose-pink. It was certificated by the National Chrysanthemum Society and the Royal Horticultural Society's floral committee, and was awarded the silver medal by the Scottish Horticultural Society as the best novelty. All who saw the blooms were charmed with them, and there was a keen competition for the stock. But, alas! the whole stock seems to have reverted to the original Mrs. Barkley, for out of about one hundred very fine plants not a white flower has appeared, and other growers complain of the same thing. It is much to be regretted.—P.

Belladonna Lily at Fortfield House, Terenure, County Dublin.—The place selected here for the cultivation of this beautiful Lily is a warm border at the foot of a south-east wall, the dry season and position apparently just suiting it. An unusual quantity of flower spikes have appeared, and at a season when they are most desired. Introduced as they were from the West Indies into British gardens as far back as 1712, they are still unsurpassed for delicacy of tint and fragrance. Since their introduction some new forms have appeared, one being called the Kew variety. This has a large deep pink flower and broad foliage; it is one of the best.—S. BRYAN.

Tufted Pansies in October.—Tufted Pansies have been flowering profusely during the last few weeks. The hot and dry weather during the past summer tested the plants severely, and at one time they were in a very bad way. Fortunately, the welcome rains came just in time to save them, and in consequence they quickly regained their former vigour. During the latter part of August and September the display was well maintained, and the older growths being cut out the plants appeared to take a new lease of life. For the past ten days there has been quite a blaze of colour in the beds and borders devoted to these flowers, and at no period during the present year have the plants looked better. Those that were cut back in August are also making a brave show. Among the yellow sorts Mrs. E. A. Cade has been superb, its large and attractive rayless yellow blossoms standing out distinctly. Yellow Beauty, Yellow Glory, and Yellow King are three sorts that also deserve special mention for their fine effect when massed. White

sorts are represented by the rayless Swan and Seagull. Of blue varieties Jackdaw, Blue Tit, Ophelia, and John Shires are among the best. Mauve-tinted kinds are useful for association with the blue varieties, and of these Marion Waters, Florizel, and Janet are excellent. These are grown within six miles of London, and succeed well.—D. B. CRANE.

Pentstemon Lord Charles Hope.—This new Pentstemon, which received a certificate at the October meeting of the Scottish Horticultural Association, is evidently a great acquisition, and likely to prove one of the most valuable of its colour, either for bedding or the mixed border. It is a seedling, raised by Mr. T. Hay, gardener to the Marquis of Linlithgow, at Hopetoun House, South Queensferry, and it has proved so satisfactory there that Mr. Hay brought it before the Scottish Horticultural Association. It will be sought for by those who desire a bright scarlet Pentstemon of dwarf habit and of such a character that it does not require sticks. The flower is quite brilliant in its scarlet colouring, and the plant grows about 18 inches high. The flowers are large, though not so large as in some Pentstemons, and they are produced in large numbers. As Mr. Hay informs me, it is quite distinct from any other at Hopetoun, where over 2,000 Pentstemons are grown. Some spikes have as many as eighty flowers thickly set upon them, and yet not so closely as to be stiff-looking. I have been much pleased with this Pentstemon, some good spikes of which are before me as I write.—S. ARNOTT.

British Flowers at the St. Louis Exhibition.—We are pleased to note that Messrs. Sutton and Sons of Reading have been awarded by the jurors of the St. Louis Exhibition the "Grand Prix" for their collection of bulbous and annual flowering plants. This is the only "Grand Prix" awarded for flowers in the British section. In addition Messrs. Sutton receive the only gold medal given in this section for grass seeds. The bowling-green and the various lawns sown down with Sutton's lawn seeds were much admired.

Protection of alpine flowers.—No. 19 of the "Communications of the German and Austrian Alpine Club" contains the following note: "Protection to alpine plants, giving sequence to the precedent of the administration of other countries, re the protection and preservation of the Edelweiss." The Nether-Austrian Landtag has, in the year 1901, prohibited, under penalties, the pulling up by the roots, and the offering for sale of such plants with their roots. The presidency of the society for promoting the increase of travelling visitors to Nether-Austria have now presented a memorial to the board of councillors, praying that the benefits of such protection may similarly be extended to other alpine and sub-alpine flowers and plants. The board of councillors have not opposed these considerations, and have now, through their reporting member, Dr. Schleicher, presented to the Landtag the following Bill, which will be sure to be welcomed by all lovers of Nature: "With regard to the following plants, viz. (a) the Kohlröschen (*Nigritella angustifolia*), (b) the Franonschuh (*Cypripedium Calceolus*), (c) the Aurikel (*Primula auricula*), (d) the Stengellose Enzian (*Gentiana acaulis*), (e) the species of *Kervestengel* (*Ophris*), lifting or pulling up plants with roots and tubers is prohibited, also the offering for sale of such plants which are furnished with roots and tubers. With regard to the plant mentioned (sub a), viz. (*Kohlröschen Nigritella angustifolia*), the trade, also with plants minus their roots, is not conceded. Only such cases form an exception to this decree where the collecting of these plants serves a scientific purpose. In this case, however, permission must be obtained from the political authority of the district. Offences against this enactment will be punished by the political authorities with fines of from 2 kronen to 20 kronen, and in cases of repetition of 50 kronen, these penalties to go to the poor fund of the particular parish within the boundaries of which the offender had been taken up. It is also decreed that the plants shall be confiscated.—E. HEINRICH.

Buddleia variabilis veitchiana.—I lately saw this *Buddleia* growing at the foot of a wood fence in the garden at Westwick Hall, near Norwich, where it was flowering well. It is a grand plant for training loosely to a fence. The large, deep green leaves quickly cover space, and the purple racemes are very showy.—E. M.

Myrtus apiculata (M. Luma).—How much superior is this Chilean Myrtle to *M. communis*. While the flowers of the latter are a dull white those of *M. apiculata* are snow white, and are produced much more freely than in the case of the common form. The foliage, too, is a deeper green.—E. M.

Solanum jasminoides.—Growing over the southern side of the porch of Mr. Herbert Reeves's house, Northlands, Emsworth, near Havant, is the finest out of door specimen of this South American *Solanum* that I have seen. The plant was put out eight years since, and only receives slight protection at its base during the winter. The plant is about 15 feet high, with luxuriant foliage; it is quite smothered with the pure white blossoms, which are exceptionally large. Last spring the plant was pruned back to the old wood, thus inciting it to make new growth. Seen as this plant is now, one cannot fail to recommend its use wherever a south wall is available.—E. M.

British Columbian fruit.—Only a few years ago British Columbia was regarded as a good country for timber, minerals, and fish, and practically nothing else, but now it is found to be one of the best countries in the world for the production of fine fruit, and fruit-growing is rapidly going ahead, with good profits to the growers. Some of this year's growth of Apples and Plums that have just arrived in London were shown on Tuesday, the 18th inst., at the Royal Horticultural Society's new hall, Vincent Square, Westminster, and awarded a gold medal.

The Royal Dutch Bulb Growers' Society, Haarlem, Holland, intends to hold its quinquennial exhibition of bulbous flowers on March 17—21, 1905. The schedule, which has just been published, shows that a large number of prizes are being offered. It is intended to make this show the finest that has been held by the society. Those interested can have further particulars on application to the secretary, Mr. Joh. de Brenk, Haarlem, Holland.

Tacsonia mixta.—I once heard exception taken to the brilliantly coloured *Tacsonia Van Volkemii* on the ground that it was too gorgeous to harmonise with its surroundings, though I think few would be found to endorse that opinion. In any case the same charge could not be brought against *Tacsonia mixta*, whose flowers are of a delightful shade of soft pink, and on a large and old-established plant they are borne in great profusion. It resembles *T. mollissima*; the flower has a similar long tube, but the larger flowers of *T. mixta* render it more showy. A fine specimen has been flowering for some time in the Temperate house at Kew. Both these species are natives of the Andean region of South America. In the "Kew Hand List" *T. oriantha* is regarded as synonymous with *T. mixta*.—T.

Euonymus alatus.—Among the cut branches of shrubs exhibited by Mr. Chapman, gardener to Captain Holford, Westonbirt, Tetbury, at the Horticultural Hall last week to show their autumn leaf tints the Winged Spindle tree was conspicuous. It is remarkable even from its curious "winged" stems alone, and it is equally so on account of its rich and distinct leaf colouring, which may perhaps be best described as pale claret; in fact to say it is the colour of claret and water seems to me to be the best comparison that one can make. The colours of leaves and flowers are often difficult to describe in a manner that will convey a clear idea of them to the reader, and in such cases it is not only permissible but often desirable and helpful to make a comparison with something commonplace, the colour of which is known to everyone. *Euonymus alatus* becomes a striking object in the shrubbery long before many other trees have begun to take on their autumn tints, and for that reason it is worth planting in small groups. When all trees are losing their

foliage in rich and brilliant colouring one is often not more remarkable than another, but while the leaves of most are still green, a tree that then is red or gold becomes doubly valuable. It must be said that the Winged Spindle tree is not very handsome at other seasons of the year, for it makes a rather ungainly specimen, whose branches are none too well clothed with leaves.—Y. Z.

Chrysanthemum Harvest Home.

Among the many new varieties that are constantly being introduced the older varieties of merit are in some danger of being lost sight of. There can be no doubt about the value in the outdoor garden of these early-flowering *Chrysanthemums*, for they bloom throughout such a long period and continue until they are spoilt by frost. The variety *Harvest Home* is the one I should like to draw attention to. Its bronze and yellow flowers are produced in great profusion, and, together with the rich green leaves of well-grown plants, a very pleasing colour association results. One can cut bunches of the flowers and hardly detract from the beauty of the bed. There is a splendid lot of it in a bed in Hyde Park; so late in the year its rich, pleasant colouring is much appreciated.—Y. Z.

Foxgloves and Poppies fill a corner in the wild garden with charming effect. The stately



FOXGLOVES AND POPPIES.

spikes of Foxglove bells tower above the dainty many-coloured flowers of the Poppies, and bring brightness and beauty into the duller corner. The accompanying illustration will show better than words can tell the effect of this flower association.

Linum arboreum.—This yellow Flax is a most valuable plant for the rock garden, for, though a native of Crete, it is practically hardy, living out through the winter unprotected in the neighbourhood of London, and flowering profusely in the spring and summer. It is an old plant, having been introduced into this country about 120 years ago. Its flowers are of a beautiful clear yellow tint, and it commences to bloom in April, continuing to flower through May and June, and often holding a few blossoms well into the autumn. It forms a small bush from 12 inches to 18 inches in height, and often more in the spread of its shoots. In exposed situations it is dwarfer and more straggling in habit than when occupying a sheltered nook, and in light soil in a sunny and naturally protected site in the rock garden it is seen at its best. It retains its branches and leaves

through the winter, and in this differs from *L. flavum*, with which it is often confounded, the latter plant being a true herbaceous perennial, dying down annually, and sending up numerous shoots from the crown in the spring. In leaves and flowers it is hardly distinguishable from *L. arboreum*, the blossoms of each being of the same colour and about an inch in diameter. *L. arboreum* is readily increased by cuttings taken off about midsummer, but rarely produces seed, whereas *L. flavum* seeds freely, self-sown seedlings usually springing up in numbers around the parent plants and flowering in the second year.—S. W. FITZHERBERT.

Cassia corymbosa.—This handsome flowering shrub, a native of Buenos Ayres, from which place it was introduced into this country in 1796, is grown under glass over the greater part of England. In the south-west, however, it does splendidly in the open, without the slightest winter protection, and the colour of its flowers out of doors is far brighter than when the plant is grown in a conservatory. There are many noble specimens in South Devon and Cornwall well deserving of mention; one that I saw in flower in August in a Cornish garden covered almost the entire gable end of a dwelling-house. The corymbs of bright golden-yellow blossoms are produced in the month of August, and through the whole of September show no sign of diminution or fading, and often remain in fair numbers through another month, while it is no uncommon thing to see a plant still bearing flowers on the open wall as late as December. Plants grown in the open are deciduous, but rarely lose their leaves entirely until January or later. In the spring, just as the plants are commencing to make growth, such shoots as cannot be laid in are cut back to one or two buds. The plant is easily raised by cuttings taken in the autumn, and inserted in a warm pit or propagating house. They should be grown on gently through the winter and gradually hardened off preparatory to planting out in May.—S. W. FITZHERBERT.

Acacia linifolia.—Of the innumerable forms of Australian *Acacias* nearly all flower during the early months of the year, though one species—*A. platyptera*—has long been noted from the fact that its golden blossoms are borne during the autumn and early winter. A second species, and an uncommon one, also flowers at the same time. This is *A. linifolia*, which, irrespective of its flowers, is a handsome plant. The phyllodes (popularly termed leaves) are long, narrow, and partially drooping, thus imparting grace and elegance to a well-grown plant. The flowers themselves, borne in globular heads as in most of the others, are pale yellow or cream-coloured. It is not suitable for growing in small pots, but a specimen 6 feet to 8 feet high is very beautiful. This species is flowering freely in the Temperate House at Kew, and a specimen close by named *A. nerifolia* appears to be almost, if not quite, the same.—H. P.

Leonotis Leonurus (Lion's Tail).

This plant is rarely seen either in gardens or at exhibitions nowadays, and the group shown by Messrs. James Veitch at the Horticultural Hall on the 18th inst. was very welcome. *Leonotis Leonurus* is a handsome plant with whorls of long tubular orange-scarlet flowers, produced in the axils of the opposite leaves towards the top of the stems. The ground colour of the flowers is creamy white, but this is so densely covered with orange-scarlet hairs as hardly to be seen; the hairs also form a fringe to the margin of the corolla. The plants shown by Messrs. Veitch were about 2 feet high, each having three or four stems crowned with flowers. The plants were raised from cuttings rooted last February, and were grown out of doors during the summer. It may be interesting to mention that this *Leonotis* was one of a number of plants described by Mr. Thompson of Ipswich in his list of new plants for 1884. Mr. Thompson thus writes of it: "Under its older and better name of *Phlomis Leonurus* this handsome Labiate was formerly met with at intervals in English gardens, but amid the crowd of competitors for admission to the flower border it has lately been almost overlooked. It is a dwarf suffruticose perennial growing 5 feet or 6 feet high in good soil, but flowering in a much

smaller state. The flowers are produced in whorled clusters from the upper axils of the shoots. They are of a fine orange-scarlet colour, resembling in form those of some *Justicias* or the more homely white Dead Nettle, the upper lip of the corolla being, however, much longer and remarkable for the fringe of soft hairs. The flowers are produced rather late in summer, and it is, therefore, desirable to plant out as early as possible. It may also be grown in large pots plunged in the border, which will allow of its being removed to the greenhouse for protection when in flower.—Y. Z.

Chrysanthemum Devonshire Cream.—This new early-flowering variety is one of Mr. Godfrey's raising, and is especially pleasing in habit, form of flower, and colour. The latter is deep cream in the centre, changing as the florets unfold to white, with a tinge of pink at the tips of the narrow petals. It is a full-built flower, and most useful for cutting.—E. M.

Polygonum alexicaule album. This Knotweed is a desirable form of the ordinary red-flowered one, and for naturalising it is a good plant. In height it grows from 3 feet to 4 feet, and gives its pure white flowers abundantly.—E. M.

Pentstemon antirrhinoides.—In a genus which is of considerable extent, and possesses plants with flowers in colours covering a wide range, including blue, scarlet, and white, the above species stands out as the only one with pure yellow flowers. Others have a slight trace of that colour, like *P. breviflorus*, which has yellow flowers striped with pink. *P. antirrhinoides* was first found by Dr. Coulter in Southern California in the year 1824. It flowered at Kew in 1874, and was figured in the *Botanical Magazine*, t. 6, 157. Owing probably to its rather tender constitution, like *P. cordifolius*, it has never become a common plant, for it requires the protection of a cold frame during winter. In its native habitat it forms a shrubby, freely-branching plant, from 1 foot to 5 feet high, with small, oval leaves. The lemon-yellow flowers are unlike the majority of *Pentstemons*, being very short and unusually broad. It is evidently a plant for the warmer parts of this country, and its colour should recommend it to the hybridiser. It does not begin blooming till the beginning of September. Other uncommon species still in flower are *P. murrayanus*, a stately plant from 3 feet to 4 feet high, with glaucous leaves and paniced racemes of showy deep scarlet flowers. This plant is a native of Texas, where it is found on open prairies. *P. puniceus*, which is of somewhat similar habit to the last, but is sometimes said to attain a height of 6 feet in its native habitat in Arizona, is also still producing its deep scarlet flowers. It differs from the preceding species in having a more slender tube and smaller mouth to the flowers.—W. I.

THE FLOWER GARDEN.

PLANTING HERBACEOUS PÆONIES.

FOR planting the herbaceous Pæony early autumn is the best time, and the earlier the better. If the work be taken in hand at this season there is every hope that the plants will become re-established in the shortest possible time. This opinion is the outcome of many years' experience. It is the more desirable that the planting should be done at the right moment, because these Pæonies do not require to be planted or replanted each year. Far better, indeed, that the plants should be left alone for years, provided that the work of first planting was properly carried out. The chief reason why the Pæony should always be planted in early autumn is the production of the main roots at this season, and, as one set of these is produced each year, it is desirable that the planting should precede the period of the issue of these roots. The Pæony is always impatient of disturbance and slow to re-establish in any new position, and these characteristics are more manifest when the work is done at what one may call an unseasonable time. If the new main or tap roots have

been produced, and the planting follows, these roots, by their extremely brittle nature, are broken off, and probably the remaining stump injured also. In such a case the freshly-planted subject for its sustenance is mercilessly thrown upon its own resources for the greater part of the ensuing season, and the output of its growth has the effect of considerably reducing its vitality, and, in proportion, in place of a finely-developed crown bud a weakling only is formed at the base. Again in turn this weakling produces its weaker growth, and in this way the mistake and the delay of one year may be responsible directly and indirectly for something like two years' poor growth and development. I have seen it stated, and, unfortunately, in a gardening paper, that the best time for planting the Pæony is "in spring, when some 6 inches of new growth has been made."

If the Pæony, like the Phlox, produced constant supplies of new roots from the crown, the former could be successfully replanted for months in the year. But it is not so, and therefore there is the greater need to emphasise the fact that "now" (early autumn) "is the time to plant Pæonies." By planting at the proper time and using plants of moderate size, such as have three or four good crown buds, good blooms may be had the following year, and in the third season the plants should be 3 feet high and capable of carrying an abundance of fine flowers. It is of considerable importance that the Pæony should not be planted in large clumps intact. Where it is desired to form a large group the following principle should be adopted: Divide the clump into several pieces of three crowns each, and replant them at the outer edge of a circle of 3 feet diameter, arranging the divisions 18 inches apart. In the third year the group should be 6 feet across and carrying perhaps double the quantity of flowers that a single plant would yield. A few such specimens in a garden or on the lawn would make a good feature, and would do justice to a noble hardy flowering subject. Of considerable importance are soil and treatment, and the former can neither be too deep nor too rich. I have traced the roots of Pæonies to 3½ feet without reaching the point, and by reason of this deep rooting the soil of the Pæony bed should be trenched fully 3 feet deep, working in almost any quantity of manure. Lay in ample manure at a depth of 2 feet or lower, that the soil may be enriched for the years to come. Nearer the surface shorter manure may be added liberally, and in the case of very heavy soils, road grit, wood ashes, or the ash from rubbish fires may be worked in without stint. Use bone-meal in plenty and lime or old mortar in the more retentive soils; in short, anything that will add to the fertility of the soil, for Pæonies like luxurious fare, and amply repay it. Finally, let the surface of the bed be arranged 3 inches below the ordinary level, so that the bed may be flooded a few times in dry weather. Established Pæonies in beds or groups benefit by winter dressings of strong liquid manure. Given at this time, when the soil is moist and new roots abound, these are of the greatest possible assistance. E. H. JENKINS.

EARLY-FLOWERING CHRYSANTHEMUMS.

ONE effect of the October show of the National Chrysanthemum Society, recently held at the Crystal Palace, should be to prove to the garden-loving public the usefulness of the early-flowering Chrysanthemum for the border. Not the least interesting of the exhibits on this occasion, judging from observations made by visitors to the exhibition, was that of the better sorts that had been grown outdoors. These bunches were cut from plants outdoors that had been grown without disbudbing. To some it seemed hardly credible that such an interesting series of flowers were grown in the open. What surprised many was the diverse character of the Japanese flowers and their varied colourings. Dull and dowdy shades were absent, and in their place were charming sprays of flowers of warm and rich colours. It is astonishing how little is known of the early Chrysanthemums, and yet they should

be regarded as one of the best—if not the best—flowering subjects at this season. Occasionally one meets with an interesting collection, somewhat isolated, certainly, but all the more appreciated, perhaps, in consequence. Groups of the better sorts planted for effect form a sight worth seeing. By a judicious selection it is possible to create one of the most charming autumn floral pictures that one could well desire. A pleasing sequence of colours planted in association or a contrast effected by an accurate knowledge of the different kinds seldom fails to please, and these points passed through one's mind when looking through the different exhibits at this interesting show.

Conspicuous among the yellow Japanese sorts were Horace Martin and Carrie, a pair of very useful and effective plants in the border. Of the crimson shades Goacher's Crimson was the best. The older Harvest Home, however, is a brighter colour, though the flowers lack the quality of the first named. A splendid new early-flowering single of large size, sent out by Mr. H. J. Jones last spring and named Mrs. Chas. H. Curtis, is one of the best of the early varieties. The colour is deep rich crimson, and with its yellow disc is most effective. The plant has a good habit and flowers profusely. Another new sort is R. Pemberton. This is a pretty amaranth-coloured flower, and is very free. In the border it is very striking, being about 3½ feet in height. Polly is an excellent variety, having beautiful flowers of a bronzy yellow colour; this is one of the best things of the past season. Elenore (Jones)—there are two sorts bearing this name—is a charming variety. The flowers are of pleasing form, and their colour is deep rose-pink, tinted salmon; height about 4 feet. Pride of Hayes is another very good flower of beautiful form, and of a lovely shade of soft rose. Improved Masse is one of the largest and best of its kind; far away and above the type in point of quality and colour, too. The colour may be described as clear rose. The plant is rather less than 3 feet high, and the flowers are on stiff, erect footstalks. Rosie is also a delightful plant and a really grand flower. The colour may be described as bronzy terra-cotta, and the large, full blooms are each developed on a sturdy, erect flower-stalk; height of plant about 2 feet. Mrs. W. A. Hobbs, sent out in 1903, is a gem. The plant is very free, and the flowers are rosy carmine in colour. Howard H. Crane was represented in one of the stands, and this is a striking October-flowering variety. The plant is of branching growth, and bears innumerable buds and blossoms, the colour of the latter being a bright chestnut, with a pale bronze reverse. Mychett White still holds its own as the best of the white sorts, but its constitution leaves much to be desired. Nina Blick is one of the earliest of the newer sorts; the colour is rich golden-bronze, and the growth is excellent. D. B. CRANE.

WILD GARDENING IN SPRING.

(Continued from page 274.)

PLANTING DAFFODILS.

I USUALLY commence planting these about October 1, and get the bulk in during that month, and the rest in during November. I find it better to delay planting some of the bulbs, as I fancy in this way you get a longer succession of bloom. After planting the bulk I go over the whole of the ground, the newly-planted parts as well as the old-established, at intervals of a few days, and drop in a few bulbs here and there, just as the fancy takes me.

In making the holes I cannot too strongly advise that Barrs' patent planter be used. It saves a lot of time and trouble, it does its work effectually, and has many other advantages over the pole-bar. I make the holes 5 inches or 6 inches deep, and if the ground is very heavy I drop in a handful or two of lighter soil.

As regards the best varieties for the grass, more especially Daffodils and Tulips, I would advise tall-growing varieties, free bloomers, and, what is very important, as far as possible varieties of Daffodils that rapidly increase.

If we get a growing spring, the shorter kinds are hidden by the grass, as also with the foliage of the

tall-growing varieties. The blooms are thus simply wasted. For Daffodils you cannot beat such splendid kinds as Sir Watkin, 21 inches high; Emperr, 21 inches; Empress, 20 inches; maximus, 18 inches; Barri conspicuus, 20 inches; princeps, 15 inches; Horsfieldii, 14 inches; and the Leeds, Star, and posticus type. After testing 50 varieties out of the 500 offered for sale, I think my favourite for grass is Sir Watkin, standing up as it does on its stiff strong stem some 21 inches high, a sure bloomer, with large blooms some 5 inches across, and it also seems to me to stay in flower longer than any other kind. It propagates rapidly, and in a suitable position I have known it to treble itself in two years. The double Phoenix kinds are very pretty, but unfortunately have the disadvantage of hiding their heads in the grass, especially in showery weather. The old Double Orange is more satisfactory. Golden Spur is very good, but does not last.

Our native Daffodil, the common Lent Lily, does better in the grass than anywhere, but unfortunately it is very short, and my grass at Wiggle grows rather rank, so I do not find it satisfactory.

We cannot have too many of the charming sweet-scented Posticus type, some varieties being three weeks later than others, and, being mostly white, they afford a nice contrast to others, and are particularly conspicuous in the evening light, with the shadows in the grass for a background. They will flourish under trees, and in fact will grow nearly everywhere. I have a weakness for all sweet-scented flowers, even if the bloom is unattractive, but here we have beauty and scent as well. In

TULIPS

I would advise early singles—Darwins and plenty of the May-flowering or cottage. Keizer Kroon is a particularly good and early one for the grass; in fact, nearly all Tulips, practically speaking, look well. But do not have too many yellows, as you have ample yellow in the Daffodils. I would not advise the planting of Parrot Tulips, as they will require some support if they are to make any show. Double Tulips are not so satisfactory, having rather an unnatural effect. In

HYACINTHS

there is not, of course, so much choice. The ordinary mixed bedders will do, but I find it best to have the majority pink, red, white, and light blue. The dark hues do not show up so well. One of the prettiest things I have seen was a mixture of the common Bluebell and what is generally called the white Bluebell (*Scilla campanulata alba*) growing together. The effect was charming. With respect to the

CUTTING OF THE GRASS

I treat it like an ordinary meadow, that is, mowing it about the middle or end of June and then again, roughly, at the end of September. I once left a portion until later on in the summer, by way of experiment, but did not perceive any improvement in the flowers in the spring. The most satisfactory soil for spring wild gardening seems to be a good medium loam, the ground slightly undulating, with just sufficient drainage to take away the surplus water. It is better to have a little shade in places, although it is not essential, but I find the flowers last longer under the trees when we get a warm, sunny spring.

Respecting the use of farmyard manure for bulbs in grass, I recall having tried an experiment by digging out a space and putting in some good rotten stuff, but it was a total failure. My personal opinion is that manure is not required. No doubt some varieties do best on rather heavy soil and others on lighter soil, and, if the soil varies in your garden, it is a good plan I find to take note of the result and next year arrange your planting accordingly.—Paper read by Mr. A. TROWER at a meeting of the Redhill, Reigate, and District Gardeners' Association, September 27.

(To be continued.)

THE ROSE GARDEN.

ROSES FOR SCREENS, HEDGES, AND TRELLISES.

WE have at this planting season received several letters in which a desire is expressed for information about the making of Rose screens, hedges, and trellises. We think the following notes from "Roses for English Gardens" will prove useful to our readers:

Many are the opportunities in the planning of gardens for having a screen or hedge all of Roses. Sometimes it may occur as part of the Rose garden design, but more often in some detached portion of the grounds some kind of light screen is actually wanted. There are often rubbishy or at least unbeautiful spaces on some of the frontiers of the kitchen garden, where a Rose screen or hedge will not only hide the unsightliness, but will provide a thing beautiful in itself, and that yields a large quantity of bloom for cutting. Many are

and pale yellow, with bluish foliage; the middle one of warm colourings of rose, red, scarlet, orange, and full yellows, and the third of purple, pale pink and white flowers, with silvery and other cool foliage.

Chains are generally used to form the garlands from post to post, and they are the best, as they hang in a good natural line. A cheaper and not bad substitute is wire rope. Whether chain or rope is used it is an excellent plan, and much better for the Roses, to wind thick tarred twine, or something stronger than twine—tarred cord as thick as the diameter of a large Sweet Pea seed—round and round the chain or wire, keeping the coils rather close, so that the Rose branches do not actually touch the iron but rest upon the coiled cord.

For the post and low trellis the posts are planted with any of the good Ramblers or Roses of free growth, while the low trellis may have strong growing Hybrid Perpetuals or any of the Teas and Hybrid Teas usually described in Rose lists as "vigorous." In this case two Roses, or three, according to space, preferably of the same kind, would be planted against each panel of the trellis. Another way would be to plant another Rose of



A SCREEN OF ROSES.

the kinds of structure that may be used to support and train the Roses. But with posts of Oak or Larch, and straight long lengths of sawn Larch tips for the top rail, and some wire netting of the coarsest mesh, an effective framework may be easily and cheaply made that in three years will show a perfect covering of blooming Roses. Between this and the elaborately made wooden framings there are many grades and forms of flower wall or trellis that can be arranged according to special use or need. One pretty way is to have a low trellis with posts for pillar Roses at intervals. This can be carried a little further by having chains from post to post. If this should occur on each side of a path, the posts coming opposite each other can be connected by an arched top. This arrangement can also be very prettily adapted to such a Rose trellis at the back of a flower border, either at the two ends of the border or at intervals in its length. It would be an extremely pretty way of having a double flower border in three divisions, with such an open cross screen twice in the length, as well as at the beginning and end. The first division of the border might well be flowers all blue and white

rambling habit against the middle of the trellis and train it down over its next neighbour.

Posts when put into the ground should always have the ends prepared either by gas-tarring or by charring in the fire. This preparation should come up the post quite a foot out of the ground, as damp and rot attack it first at or near the ground line. If a better kind of wooden framework is made, the posts are set on stone or brickwork 9 inches to 1 foot out of the ground.

Roses of the free-growing kinds adapt themselves readily to the form of hedges. One has only to choose a Rose of more or less vigour, according to the height required. The hedges or screen way of growing them has the merit of ease of access for training and pruning as well as that of giving close enjoyment of the living walls of flowers. The tendency of nearly all strong growing Roses is to rush up and leave bare places below. A Rose hedge should, if possible, have a free space on both sides, when this defect can be remedied in two ways; one by training the shoots in an arched form with the tips bent well down, and the other to tip some of the outer strong young shoots that

spring from the base. If in July these are shortened about a third, instead of continuing their growth in length, their energy goes to strengthening the shortened piece that is left. This will then, the following season, be thickly set with flowering laterals that will clothe the lower part of the hedge.

Many of the newer rambling Roses, the old Ayrshires and the stronger of the Teas, are admirable for this way of growth, while there are Roses to suit every height. The height of the Rose hedge, as in all other matters of garden design, must be determined in relation to the proportion of the space it is to fill and the size and distribution of whatever may be within view. Nothing is gained by carrying it up to a great height; 8 feet or 9 feet is in most cases the limit of desirable height, while anything from 4 feet to 7 feet will be likely to suit the wants of most modest gardens. A charming hedge 4 feet high can be made with the old favourite *Mme. Plantier*. It is all the prettier if there is a short standard of the same at regular intervals. Another pretty hedge of the same class can be made with this good Rose in combination with one of pink colouring, such as the old Hybrid Perpetual *Anna Alexieff*. We know a pretty Rose hedge where the two are mixed; not planted alternately, but two or three of one kind and then one of the other, and so on in irregular sequence. Or it would be charming to have short standards of *Anna Alexieff* rising as just described from the low hedge of the white *Mme. Plantier*.

No one would regret some planting of these two excellent old garden Roses. This one example is given as a type of this kind of planting. Any one who tried it and had enough garden sensibility to feel its charm, and enough garden fervour to wish to practise it in varied forms, would soon invent other combinations.

It would be easy to name many such desirable mixtures, but it is more helpful to show one simple thing that is easily understood, and that awakens interest and enthusiasm, and to leave those wholesome motive powers to do their own work, than it is to prompt the learner at every step, fussing like an anxious nurse, and doing for him, what, if his enthusiasm is true and deep and not mere idle froth, will give him more pleasure in the doing, and more profit in the learning, than if it were all done for him. For the very essence of good gardening is the taking of thought and trouble. No one can do good decorative work who does it merely from a written recipe.

COLOUR IN THE MIXED BORDER.—IV.

BEFORE proceeding to describe the planting of the next section, I think a few words of advice would be welcome. I am anxious to make every little detail quite clear, as without this these articles may end by misleading the very people they are intended to assist. In dealing with the material to be used in the section it must be borne in mind that many of these plants require consideration and slightly different treatment, and the most important point of all is the way the hardy perennials are planted in the first instance. The method which seems to be universal is to grub a hole with the hands, throw the plant in, and tread it down with the foot. There is no regard shown for the exquisite delicacy of the root, whose food-finding fibres are so fine that that they can only be seen through a microscope. These roots should be handled carefully, spread out with the fingers, the hole filled in with the soil and a little sand, or some fertiliser added, according to the wants of the plant, and then with the hands it should be pressed firmly into the earth so that the frost cannot force it out of its position.

Many Wallflowers are lost every winter owing to careless planting. It takes a great

deal of time, I allow, but no good work can be done without taking time, and the difference it makes in the end is incalculable; in fact, I consider the whole future success of the border depends on it. There is another thing I should like to impress upon you: Gardening is a "waiting game." Rome was not built in a day, and the same proverb applies to the mixed border. You cannot have a good show the first year. The Delphiniums, for instance, will probably be quite small plants, for very few houses send out large stuff, which is really best in the long run. As you cannot plant everything in the autumn, you must leave a definite space for those more delicate subjects that have to be put in their permanent quarters in the spring, and also for the annuals that have to be sown and pricked out. It is impossible for me, with the best intentions in the world, to particularise all these things, but your gardener, if he deserves the name at all, will be able to advise you, or you yourself are probably quite as well up in these details as I am. Besides, there is a great difference of opinion on the *when* of planting, and it is only by personal experience, often dearly bought, we gain a position from which we can lay down the law on the "ins" and "outs" of gardening.

All the Primrose tribe like a due degree of moisture, and seem to prefer a west border. Pansies thrive better if they are given a portion of rich moist soil, and they like good food and require it, for they blossom profusely for four or five months. All delicate bulbs are better planted in the spring, and when once established, unless they have to be lifted, ought to be protected every autumn by putting wood ashes over them, not cinders; this is very important. When you plant your Phloxes give them extra good soil, because they suffer from drought more than any other plant, and from their usual position at the back of the border do not always get the full benefit of passing showers. I have found it an excellent plan to add a little prepared compost to the soil when planting any particularly fanciful subject—with the Lily tribe especially—but of this more anon.

Yellow being the next colour in our scheme, we will now deal with it. Happily, we have a large choice, for it is a tint that in the flower world predominates greatly. We have also plenty of tall plants for the background of our section, so many, in fact, that to decide on their several merits is somewhat difficult. In profusion are the perennial Sunflowers, *Harpaliums*, *Helenium pumilum*, and *Helianthus*, of which *Miss Mellish* is an established success. These are supplemented by the handsome annual Sunflowers planted in May, and we can have the Golden Rods and the beautiful sulphur-coloured Hollyhocks, and to flower before these the yellow Foxgloves. *Oenothera grandiflora* will do in the background, but, I warn you, it is distractingly untidy. For early spring flowering you might plant, far back, Broom and Berberis, always supposing your ground lends itself to such treatment. The perennial Sunflowers, the Hollyhocks, and *Solidagos* at that season will be hardly above the ground. Next comes the Lupin, a beautiful and useful thing, and in the early summer the *Aquilegia chrysantha*, a yellow hybrid and quite one of the prettiest, will flower, followed by *Antirrhinum Cloth of Gold*, which will bloom persistently until autumn if you cut off the seed-pods. Day Lilies and yellow Iris, English and Spanish, will come in well, and plenty of Wallflowers for April and May, double and single. The old double yellow is splendid, but too little seen now and difficult to get, for it must be grown from cuttings to have it true.

You can plant Tulips now, Canary Bird among the other yellow varieties, and plenty of Daffodils—you may keep to the yellow self if you like, but I do not think it matters—and there is the *Polyanthus Narcissus Soleil d'Or*. Put in some sand with all your bulbs—it will keep them healthfully dry all the winter; good clumps of *Trollius*, too, but these will not do much the first year. For Carnations, *Cecilia*, which Mr. Martin Smith says is the best yellow he ever raised, and *Miss Audrey Campbell*; a pinch of soot will warn off the wireworm; and if you have a greenhouse you can grow some French *Marguerites* to put out in the summer. For carpeting try *Mesembryanthemum cordifolium* and, if your climate is temperate, *Oxalis luteola*. Towards the front plant yellow *Alysum—saxatile compactum* is its botanical name—Iceland Poppies, and *Primroses*, double and single; the double variety likes plenty of moisture, and is very unhappy if thwarted, so pamper it with a little rotten leaf-mould, and do the same, adding some silver sand, for the charming yellow *Auricula Daisy Miller*; it is well worth the trouble. Have plenty of yellow *Violas* and *Pansies*, and there are beautiful hybrid *Cowslips*, but I do not recommend the giant variety, which is coarse and presuming.

The first and sweetest of all yellow flowers is the little harbinger of spring, the Winter Aconite (*Eranthis hyemalis*), but I should plant it in the grass; it is infinitely more beautiful there than in its loneliness on an earthy border. Its small yellow face and green collar will appear on a fine February day in the springing herbage, when the blackbirds' first song is heard from the Apple trees' bare boughs. In the orchard, too, I should plant all the *Crocuses*, and as the yellow one comes first, put it in a good twenty days after the blue and white, and all three colours will flower together. For yellow annuals, with which addition your fourth section should be well filled, I have written down the *Tropæolum*, *Bartonia aurea*, *Chrysanthemum coronarium*, single and double, and *Coreopsis coronata*. By the by, do not forget to plant *Coreopsis grandiflora* as a biennial, *Linaria Golden Gem*, *Tagetes signata pumila*, and, if you do not object to their pushing ways and pungent scent, there are the French *Marigolds*. Most charming of all the annuals are the yellow *Nemesia strumosa* and *Sweet Sultans*. There is a nice bushy dwarf Lupin, too, and now I think I have exhausted my list of yellow flowers of any worth. Next we must find our purple contingent, not by any means as easy as the last, though it is astonishing how many purple flowers there are. Quite at the back you may plant *Honesty*; it is a true purple and a very early flowerer. When you have done with it you can pull it up at once, and plant out *Sweet Peas*, sown in January and grown in heat. *Dorothy Tennant* is the nearest approach to a good purple. Put plenty of stable manure into the ground, and turn them carefully out of the pot, train them on Pea sticks trimmed neatly and painted green, and they will flower all the summer. The *Sweet Rocket*, double and single, will bloom soon after the *Honesty*, and for the summer you can have purple *Loosestrife*—the "long purples" of *Ophelia's* fatal gatherings. From which legend you will see that it is a lover of moisture, and beware of its wandering tendency. *Foxgloves* will flower next, and *Hollyhocks* will complete the chain until you get to the season of the *Phloxes* and *Michaelmas Daisies*, among which plants there are several purple varieties. Of smaller flowers there are plenty. There is quite a good purple *Wallflower*, single and double; *Iris*, English and

Spanish; *Campanula glomerata* and Canterbury Bells, double and single; Brompton Stocks, and Sutton's Perfection, a splendid colour. There is, I believe, a purple *Pentstemon* called *Melodrama*, which is good, and so is *Verbena venosa*, and I have heard lately of a new hybrid *Lobelia syphilitica*, grown by Latham of Southampton; it belongs to a series of hardy *Lobelias* that ought to be invaluable for autumn bedding. Then, further forward, we have a host of pretty things—*Anemones*, *Auriculas*, *Primroses*, double and single, *Pansies*, and *Violas*. Then, for filling in, *Aubrietia Campbellei* and a *Centaurea* with silver foliage. For annuals we shall not do badly. There are Sutton's royal purple *Aster*, *Linaria*, *Sweet Sultans* again, *Whitlavia grandiflora*, *Venus's Looking-glass*, *Verbascum*, and *Candytuft*.

I have made a point of adhering as much as possible to a true purple, because its conjunction with a primary colour demands it, and you thereby save the paler lilac shades for your eighth section to follow orange. In full sunlight the purple shades are extremely harmonious, blended as they are with the different shades of green, but you would do well again to employ variegated Grasses and foliage plants to give a lighter effect on sombre days. The variegated *Maize* and *Ribbon Grass* might again be used with many others of like pictorial beauty and value. I find the sweet-scented *Geraniums* are useful and very decorative mixed with border plants, and several of these have a proportion of white in their foliage. AUGUSTA DE LACY LACY.

NOTES ON HARDY PLANTS.

ANEMONE JAPONICA WHIRLWIND.

AMONG the many varieties of the Japanese *Anemone Whirlwind* is well worth planting. Its pure white semi-double flowers make a good display, as may be seen by the illustration of a bed in the Royal Gardens, Kew. The flowers are not so double as to lose their beauty, as many double flowers do; there is simply an additional row of petals, and the flower apparently retains its singleness. This variety is very free flowering, and the blooms last in full beauty a long time.

CROCUS PULCHELLUS

A RATHER lengthy acquaintance with the exquisite little *Crocus pulchellus* enables one to say with considerable confidence that it is one of the best of the autumnal flowering sorts. Were they more frequently seen by the general number of flower-lovers they would increase in favour with still greater rapidity. It is true that they suffer in stormy weather, such as we frequently experience in an ordinary autumn, but there are few flowers which do not do this, and the beauty of the *Crocus* is so great that even a few days of its blooms in perfection will more than reward us for some disappointments. As a grower of a representative collection of both spring and autumn blooming species I can say that among them all none is more welcome than the little *C. pulchellus*, a dainty *Crocus* of an exquisite pearl-blue, or, as some call it, a blue-lilac.

It is of charming form, with deeper lines on the inside of the little cups. It is no slight merit of *Crocus pulchellus* that it increases freely by means of seeds, much more so, indeed, than any autumnal species with which I am acquainted. In consequence one soon becomes the happy possessor of a good stock of this *Crocus*, while if it is allowed to seed naturally quite a colony of young plants will soon spring up around the parent corms. When naturalised in the grass these soon make a pretty feature, being much more attractive than when in a formal group. As a *Crocus* for planting in grass this species is valuable. Its flowers are produced before the leaves, so that it requires some carpeting to show it to advantage. If it is grown in the border or on the rockery it should be carpeted with a dwarf plant, choosing for this purpose one which is not a favourite of the slugs. These are particularly fond of *Crocus pulchellus*, and seem to come from all parts of the garden to feast on it and *C. zonatus*, another autumn species indispensable in the garden in autumn. *C. pulchellus* is perfectly hardy, and comes from heathy places and woods on both sides of the Bosphorus, by the shores of the Black Sea and elsewhere in the East. No one who cares for the *Crocus* should be without this little flower. Carsethorn, by Dumfries, N.B. S. ARNOTT.

KNIPHOFIA NELSONI.

It is doubtful if any of the Torch Lilies are so generally admired as *Nelson's* species, thriving colonies of which are a source of real pleasure in late autumn. The plant has been known to cultivation for a long time, yet is still far from common, and thriving colonies with fifty or more spikes from each clump are still rare enough to occasion surprise that it is so little grown. It is a slender-growing species, whose *Eulalia*-like leaves rarely exceed 2 feet in length, and the dainty spikes of coral, tubular flowers, more refined even than the *Lachenalias*, are among the very best things to be found in the autumn garden. The plant is hardy enough anywhere in Britain, but it cannot withstand a wet winter in heavy soils. Planted high up on a rockery ledge where its roots can find what moisture they require in summer it will thrive apace, and one should always plant it whilst in flower or in late spring as it is starting into fresh growth. It will thrive anywhere in dry and warm gardens. G. B. M.

EOMECON CHIONANTHA.

THOSE who are in search of a free-flowering plant that will thrive with *Hepaticas* and *Cyclamen* in

cool, damp, and shady places cannot do much better than plant *Eomecon*, an extremely pretty plant from China, known as the Chinese or *Cyclamen Poppy*. It thrives in a deep soil of vegetable formation, producing glaucous, heart-shaped leaves that are miniatures of *Coltsfoot* in shape and manner of growth. The flowers are borne in graceful spikes 18 inches high, freely branching, and very prolific in their yield of flowers. These closely resemble *Argemone grandiflora* (the *Prickly Poppy*), being white, satiny in texture, with a large cluster of beautiful yellow anthers in the centre of each flower. It is an effective plant for the bog, marsh, and damp border, very beautiful in September when the flowers are in greatest yield, and increasing freely where given plenty of room. Its pink, fleshy rhizomes delight to ramble over half-buried stones, and the flowering growths form a charming picture in a setting of Ferns. Every piece of the rhizome is capable of forming a plant if carefully cultivated, but *Eomecon* is never likely to become so troublesome as *Mimulus* and kindred moisture-loving subjects. G. B. M.

CHRYSANTHEMUMS.

CHRYSANTHEMUM NOVELTIES AT THE HORTICULTURAL HALL.

THE meeting of the Royal Horticultural Society, held at the new hall on Tuesday, the 18th inst., was remarkable for the fine display of *Chrysanthemums* set up by most of the trade growers. There were large exhibition Japanese blooms in great variety, and many of them were displayed in large vases. In this way the uses to which the large blooms can be put were well illustrated. Among the Japanese blooms the following were specially noteworthy: *Renée*, lilac-mauve; *Henry Perkins*, an immense bloom, having very long and broad twisting and curling florets; colour, chestnut-crimson on a rich yellow ground; *Lady Curzon*, a pretty pure yellow bloom, with straw yellow reverse to florets; *Mrs. Bischoffsheim*, tinted crimson-scarlet on rich yellow ground; *Mrs. C. Beckett*, a lovely white bloom with greenish centre. *Mr. George Mileham* sent a very dainty Japanese seedling named *Miss Dorothy Olliver*, white, flushed and lightly tinted with rosy violet. Although not absolutely new, the blooms of *Lady Hopetoun* are sufficiently so to be mentioned



ANEMONE JAPONICA WHIRLWIND AT KEW.

here. They are very large, having broad reflexing and drooping heliotrope-pink florets. Under the same heading come the blooms of Lady Mary Conyers. The colour of this useful Japanese flower is rose-pink, with a silvery reverse. A striking exhibition Japanese bloom is E. J. Brooks. The colour inside the florets reminds one somewhat of Pride of Madford, and the outer colouring is a silvery bronze. An enormous Japanese flower is Miss Edith Fuller. This is distributed as a sport from the popular General Hutton. The colour may be described as buff-yellow tinted and suffused reddish bronze. The rich yellow Beauty of Leigh asserted its value as a useful flower to exhibitors. A mass of the rich crimson blooms of George Penford, with bright golden reverse to the florets, was most attractive, and this contrasted with the lovely creamy white blooms of the new Miss Mona Davis. Henry II. is a novelty that may improve on acquaintance later. It is Japanese, reddish crimson inside, with a bronze reverse. Edith Smith has been in commerce two or three years, and at length has been recognised by the floral committee of the Royal Horticultural Society with an award of merit. The colour may be described as creamy white, the lower petals being faintly tinted pale rose.

Maud du Cros, so highly thought of as a novelty last season, promises well. In one exhibit there were several handsome blooms of this soft pale yellow Japanese kind. It should stand exhibitors in good stead later. Phillipe du Cros, by the same raiser as the last mentioned, is a useful variety. The florets in this instance are narrow, and the colour is bright red, tinted gold. A large drooping Japanese bloom is Mrs. M. J. d'Arcy, the colour being pale yellow. Specially effective were the intense crimson blooms of Mrs. D. Willis James. Of the older kinds seen in fine form and condition were Mrs. George Mileham, Miss Mildred Ware, and Miss Elsie Fulton. D. B. CRANE.

TREES & SHRUBS.

LIGUSTRUM QUIHOUI.

MORE frequently ought this little-known Privet to be grown in gardens, as it flowers very late in the year, and is one of the most ornamental species when in bloom. It was introduced from China nearly forty years ago, but never appears to have been planted to any great extent. It forms a dense bush 6 feet to 8 feet high, made up of numerous wiry branchlets, which, when young, have a purplish tinge. The leaves are very ordinary looking, being small and ovate. The flowers are white, and are borne in long, loose, terminal panicles during September and October, a time when flowering shrubs are few in number. For grouping in shrubberies it is an excellent plant, but it is doubtful whether it would be worth growing as a hedge plant, for when young it grows very slowly, and cuttings cannot be obtained in such quantity as they can from *L. ovalifolium*. W. D.

FORSYTHIAS.

The old Forsythia *viridis* is now in its second period of beauty, the leaves having taken on a rich

tint, which they will keep until they fall. Coloured foliage is so much in demand for autumn decoration that this should be made note of. Those who possess large gardens cannot afford to ignore Forsythias. They yield a rich harvest of bloom just when we want all the colour we can get in the outdoor garden. They are so easily grown that one might say they need no culture. It is true that as regards soil they appear to be equally at home in heavy loam and in soils verging on sand; in fact, they flourish in ground which is incapable of supporting most flowering shrubs; the situation is, however, important, for the Forsythias are sun-lovers, and if deprived of their rightful amount of sun and air their decorative worth is not shown. *F. suspensa* is admirable on fences, walls, or in any position where it can extend and grow away wildly. In such circumstances it has a delightful appearance, and when placed so that the wood can ripen



A VALUABLE LATE-FLOWERING PRIVET. *LIGUSTRUM QUIHOUI* AT KEW IN OCTOBER.

properly it is in its season one mass of golden yellow. *F. intermedia* is one of the most handsome flowering shrubs we have, and is worthy of a place in the garden. It demands considerable space for development and deserves good treatment. Many fail to realise that flowering shrubs need light, air, and sunshine, and that without these essentials they cannot show their true value.

Byfleet.

J. CORNHILL.

HARDY FUCHSIAS.

The majority of Fuchsias which have claims to hardiness can be traced to one or two species. Most of them are varieties of *F. macrostemma*, or hybrids with that species as one of the parents.

In the coldest parts of the country it would be incorrect to call any Fuchsia really hardy, while even about London they are usually killed to the ground line in winter. In the south-west counties Fuchsias are seen at their best, for they there make magnificent bushes 8 feet or 10 feet high and as much through, which in their season are smothered with flowers. These counties are not, however, the only places where Fuchsias thrive in the open, for in many places on the West Coast they do remarkably well. In North Wales fine plants may be found, and they may also be seen in the Isle of Man, about Morecambe, some parts of the west of Scotland, and other places. In many of these parts, however, they are only found as large bushes within a mile or two of the sea, further inland they behave as they do about London, unless they are in an exceptionally favoured district. Devonshire, Cornwall, South Wales, and parts of Ireland are the places where Fuchsias do best, and there they are largely grown, though strange to say one or two varieties only are to be found in quantity. About Penzance some fine bushes of the newer and double flowered varieties are to be seen in cottage gardens, and they have been out a number of years, so there seems to be no reason why the majority of Fuchsias should not thrive outside there. It is, however, with the few that are generally considered hardy that we have to deal.

F. arborescens is a strong growing species from Mexico, having large oval leaves and rather scarce red and purple flowers, which are borne from near the ends of the branches.

F. exoniensis is a very free hybrid, with red and purple flowers, and makes a very nice bed when cut back annually.

F. macrostemma.—This is the most important hardy species. It is a native of Chili, and is said to have been introduced about 1823. When at its best it is seen as a shapely bush 8 feet to 12 feet high, with ovate leaves and elegant, pendulous flowers, the calyx of which is bright red, the corolla purple. The flowering period extends over a considerable time, beginning in June and ceasing with the appearance of frost in winter. Of this there are numerous varieties, which differ in habit and size of flowers, the colour of all being the same as that of the type. Some of the best varieties are *conica*, *corallina*, *discolor*, *globosa*, and *gracilis*.

F. Riccartoni is the most largely grown of all the hardy Fuchsias, and is one of the best. It makes a shapely bush 10 feet high, of sturdy but graceful habit, and bears showy red and purple blossoms in great profusion. A very fine bush of this is growing on the lawn at Ludgoan Rectory, near Penzance. A double flowered variety quite as hardy as those mentioned above, called *Enfant Prodigue*, is in cultivation and is well worth growing. Given good soil all these Fuchsias thrive well, and even if killed to the ground in winter they come up again strong in spring, and make very effective beds during summer and autumn. There are few more beautiful flowering shrubs than Fuchsia *Riccartoni*. The slender shoots are crimson with the wealth of drooping flowers, and the whole aspect of the bush is so graceful that one cannot well have too much of it. It is frequently seen in cottage gardens, and is a great success by the sea coast, where it attains a considerable height; but it is at home everywhere, growing and flowering freely even in a suburban garden, though not in the same way as in the country. W. DALLIMORE.

NEW AND RARE PLANTS.

CYPRIPEDIUM F. K. SANDER.

IN the accompanying illustration this beautiful new hybrid *Cypripedium* is well shown. It was obtained by intercrossing *C. Annie Measures* (itself the product of *C. bellatulum* and *C. dayanum*) and *C. bellatulum*. Messrs. Sander and Sons, St. Albans, the raisers, exhibited it before the Royal Horticultural Society on the 18th inst., when the Orchid committee gave it a first-class certificate. The broad dorsal sepal and the large petals have a creamy white ground colour, which is heavily spotted with crimson. The spots are so numerous in places as to form irregular lines. The lip is long and pointed, white, with numerous small dots.

ROUND ABOUT A GARDEN.

THE MULTITUDE OF WORMS.

WHEN the Dahlias have been blackened by frost, the garden suggests a funeral of the dead summer; and there almost always follows a revulsion of the weather to damp, warm,

clammy days, when all the herbage seems bathed in tears for the sad event. And, after that, it appears only natural that the garden should be overrun with worms, in the grim sequence of Nature. Then sometimes, if there has been heavy rain during the night, one wonders where all the dead worms on the hard paths can have come from; but no room is left for wonder if, with a lantern, you look at the sodden surface of a lawn on any of the muggy evenings which usually follow the frost that cuts down the Dahlias. Often on the whole surface of a lawn there will not be any spot where you could plant your foot without crushing several worms of various sizes, all lying with half their length exposed upon the short-cut grass. You realise, in fact, that the entire surface of the soil must resemble a rich Plum pudding with worms for the Plums, and you cease to be surprised that the thrushes can, in open weather, find breakfast, lunch, and dinner on the same corner of the same lawn every day.

ARE WORMS INJURIOUS?

But the very fact throws doubt upon the supposed "utility" of thrushes in this respect. For reasons which cannot be very clear in anybody's mind, we have all got into a way of regarding it as a certificate of good conduct for any bird when we can say that it "eats worms." For this the rook is often extolled as the

farmer's friend; and on this basis the value of the starling has been worked out in large sums of money to the agriculturist whose land it frequents. Yet, if the worm is so harmful that we may take the measure of its destruction as the standard of the utility of birds, how comes it that the lawn looks always so velvety green and healthy, despite the presence of a large lobworm under every few square inches of the soil? In a wide, evolutionary sense, Gilbert White suggested, and Darwin laboriously demonstrated that, but for earthworms, we should have none of our smiling landscapes of to-day. Not only would the surface of the inhabited earth be yards deep in accumulated rubbish, but we should have to excavate mines through

what mischief justifies us in praising every bird which eats worms. To plants that are weakly the worm may be a terror. A great lobworm will catch hold of the limp leaf of a seedling which flags after you have planted it out, and will drag the little plant by force into its burrow, so that next morning you may find a treasured *protégé* standing upon its head in a worm-hole, with its little roots in the air. Yet, taking the general effect of the work of worms over any half acre of ground, it is probably undeniable that they do good by eliminating the weaklings and the injured plants, and creating space for the vigorous to flourish in.

MORE USEFUL THAN HARMFUL.

Of course, in the confined space of a flower-pot an active, hungry worm cannot help doing harm to the roots of a plant, but out in the open among healthy and vigorous plants it probably does more good than harm. For we must remember that the worm, unlike the snail or slug, has no teeth of any kind. It obtains all its food by suction, and before it eats dead leaves it has smeared them with a fluid which hastens their decay. Then it is able to suck off fragments of the softened tissue. But all this cannot be done in a minute, so the worm has to drag the leaves which he intends to eat into his burrow—very cunningly catching hold of the small end of each leaf for the purpose—to deal with them at leisure. Living vegetable tissues would not easily be softened enough for the worm to dispose of them by suction, and it is therefore very doubtful whether the birds which eat worms do any good at all for the plants and us.

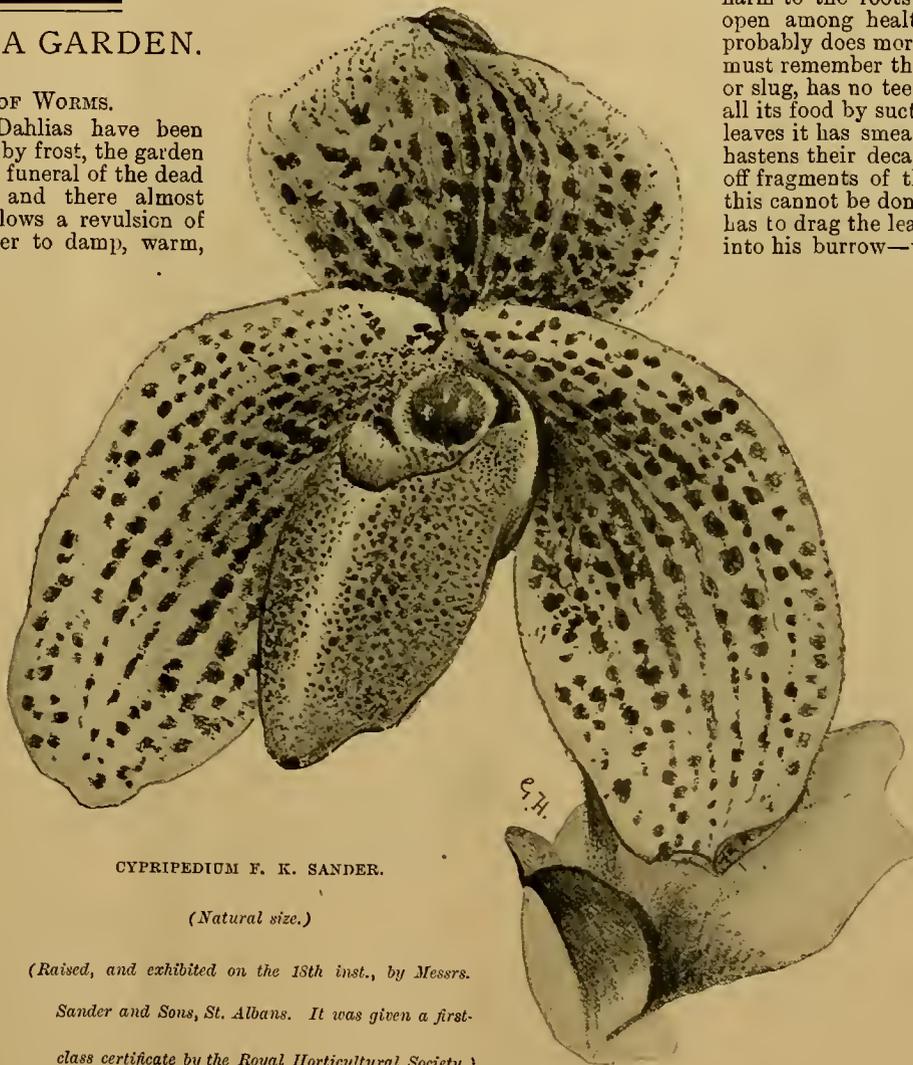
THE WORM'S WORST ENEMIES.

And it is pleasant to be able to say a good word for the worm, because, although we still have the savage instinct of repulsion from anything snakelike in shape, and our civilised instinct for clean hands makes the sliminess of the worm an added offence, yet there is something pathetic in the lot of a creature which is blind, deaf, and unarmed amid a host of enemies. For neither the birds nor the voracious mole or mouse, or shrew or hedgehog, frog or toad are the worm's worst

foes. It is often eaten horribly alive by slugs, both large and small; and there is a peculiarly active and common beetle whose grub spends its life playing ferret to the worm's rabbit, inasmuch that the gulls and plovers which haunt our fields in winter are said by some observers to obtain most of their worms by watching for those that are "bolted" by this beetle grub. At any rate, gulls have been shot with the savage grubs still clinging to the worms in their crops. Centipedes, too, and the "Devil's Coach-horse"—that fierce-looking black insect which cocks its tail and opens wide its jaws if you threaten to touch it—have hitherto been

A TERROR TO WEAK SEEDLINGS.

Of course, this is only a figure of speech, for Nature loses no opportunities. If worms did not eat the rubbish and renew the surface soil by turning it up in the search for food, some other creatures would have been evolved to batten upon the annual decomposition of the corpse of summer. It so happens, however, that this very useful function has devolved upon the worms; and in comparison with the good which they thus do it is not easy to specify



CYPRIPEDIUM F. K. SANDER.

(Natural size.)

(Raised, and exhibited on the 18th inst., by Messrs.

Sander and Sons, St. Albans. It was given a first-

class certificate by the Royal Horticultural Society.)

held to justify their horrid existence solely by their energy in killing worms. Inasmuch, moreover, as most of these creatures are considerably smaller in bulk than the worms upon which they prey, the slaughter is a prolonged and cruel business.

On the whole, therefore, the balance of sentiment, as of reason, seems to be on the side of the worms; yet it is very unlikely that any such considerations will prevent that additional stroke of the spade with which the gardener bisects such worms as are exposed on each upturned clod. Yet, even from the gardener's point of view, the blow might well be spared, seeing that nature has given to the helpless worm such recuperative powers that when cut in two each half is able to become a separate and complete worm. When, therefore, a gardener is "doing up" the garden in autumn, and divides the worms as well as the clumps of perennials amid which he finds them, he is often unwittingly multiplying both. E. K. R.

A GENERAL CALENDAR.

RENOVATING OLD LAWNS.

IT is of the utmost importance to remember that grasses and Clovers require for their well-doing a well-nourishing soil. It matters not how good the soil may be in the first instance, if we cut and carry we labour constantly to impoverish the top soil. In every barrowful of grass removed there will be a certain quantity of phosphates and other constituents of vegetation abstracted from the soil. To be always taking off and putting nothing on must result in the starvation of the grass; and we shall find that as the grasses and Clovers disappear through the exhaustion of the soil Daisies, Plantains, Knotgrass, and other weeds will take their place.

The remedy.—The simple remedy for this state of things is manuring, and the best way of manuring is to scatter over the turf a succession of thin dressings of guano and fine mould mixed together. This should be done now and again in the spring, at times when there is not much traffic on the grass, and there is likelihood of rain to follow. If appearances are of no consequence, in the autumn a good coat of half-rotted manure may be spread over the turf, but this proceeding cannot be recommended for general adoption.

Pot Roses.—Now that the cold and wet weather combined with rough winds is upon us it seems a pity to lose any of the numerous buds showing on the latest batch of pot Roses, more especially as we are getting short of this and other flowers. If we allow these plants to remain in the open with the object of ripening them more thoroughly, I do not think this would be accomplished in a more satisfactory manner than by giving protection during the roughest weather. Plants that are not needed for forcing until the spring should be placed in a deep pit, and the light only put over them upon clear nights when frost threatens and during heavy wind or rain.

Cleaning hot-water apparatus.—For the next few months the apparatus for heating fruit houses will be at rest, and an opportunity will thus be afforded for overhauling it. With the many duties connected with horticulture, this matter is apt to be overlooked, more often from want of time than inclination. It is time well spent, however, and in addition to examining the boilers themselves, the flues should have attention. These should be well cleaned and all defects made good. When the boilers and pipes are sound, draw off the water and wash out afterwards to remove all sediment. If this is done once a year it prevents a great deal of corrosion in both pipes and boilers.

Lifting unfruitful trees.—When trees make too much growth and bear very seldom or not at all, lifting is the best method of restoring them to a fruitful condition. This invariably brings about

the desired result, and is preferable to root pruning. The chief aim in lifting is to check an exuberant and unfruitful growth, to direct the energies of the trees into another channel as it were, and cause fruit-buds to form instead of a preponderance of wood-buds. Once the trees are brought into subjection and they start bearing, they seldom give further trouble. If lifting were only more practised so many complaints about unfruitful but otherwise healthy trees would not be heard of.

Cool orchard houses.—Most of the fruit in these structures will now have been gathered, and where the trees are grown in pots they should be lifted and plunged outside, the ground between them being mulched with litter. This will act as a preventive against split pots later on through the frosts. Where the trees are planted out the borders should receive attention, giving them a soaking of water at least once a week, so that every particle of soil may be thoroughly moistened. It is a great mistake to allow the roots to get dry and then to simply give the borders a soaking just as the trees are starting into growth. Much of the mischief in the way of the buds falling before they have expanded is owing to this treatment.

Winter Spinach.—This important vegetable I am afraid will not be over plentiful this year, as rain in many districts was too late to promote a strong growth. The greatest scarcity will be on shallow, hot soils. Those who are fortunate enough to possess a good healthy bed will find almost any amount of trouble repaid. A good sprinkling of soot should now be given between the rows, and the Dutch hoe used freely afterwards. Moderation in picking must be observed, as if too closely pinched the plants get a check, and growth proceeds but slowly during the winter. *Norwich.* T. B. FIELD.

BOOKS.

*The Book of the Iris.**—This little volume, which constitutes No. XXI. of a series of handbooks of practical gardening, is a useful addition to the literature dealing with this popular family of garden plants. Its moderate price should place it within reach of all, and it will, no doubt, stimulate the interest already bestowed on this valuable and ornamental genus. Most fittingly dedicated to Sir Michael Foster, whose work amongst the Irises is so well known, it is divided into two parts. The first part consists of twelve chapters, of which the first is devoted to the structure and natural history of the flower. In Chapter II. is given a selection of the most ornamental species for the formation of an Iris garden, with an indication of the needs of various species. The subjects of labels is also touched on in this chapter, accompanied by illustrations of those recommended. The culture of the *Ococyclus* section is dealt with in Chapter III. by the late Rev. Henry Ewbank, M.A., who tried very hard to successfully grow this class of plants, with various results. In it he discusses the difficulties and disappointments attending their culture, with the means that he employed to overcome them. This is a most interesting chapter, containing much valuable information. Chapter IV. deals with the cultivation of the various groups, with hints from Mr. Carl Purdy on growing Californian Irises; from Messrs. Boehmer and Co. of Yokohama on *Iris levigata*; and from Sir Michael Foster and several other well-known specialists on growing the plants of the *Ococyclus* section. Chapter V. deals with the various hybrids, of which there are many, and which promise to become more numerous. The diseases to which Irises are subject are considered in Chapter VI., and remedies prescribed for dealing with them. Part II. is devoted to the classification of the numerous species belonging to the genus. A key is given, in which they are divided into twelve principal sections, grouped according to certain characteristics. Then follows a list of 140 species, with descriptions and references to figures,

* "The Book of the Iris." By R. I. Lynch. Published by John Lane, Bodley Head, Vigo Street, London. Price 3s. 6d.

accompanied by notes on the special culture of individual species. Numerous full-page illustrations add greatly to the value of the book, which consists of 200 pages, and will be found very useful for reference by those who want to cultivate these beautiful flowers.—W. I.

THE KITCHEN GARDEN.

VEGETABLES AT ALDENHAM.

WHEREVER vegetables are staged for competition or exhibition only, the name of Beckett is invariably associated. At the leading shows in various counties the Aldenham vegetables have been so successful and so much admired that visitors marvel at the results and wonder how they are produced. Having quite recently spent some time in inspecting the various items of interest, it occurred to me that those readers of THE GARDEN who have not the opportunity of seeing for themselves how these wonderful vegetables are produced might be interested to hear about them.

Nothing is left to chance; whatever is attempted is done well. Mr. Beckett believes in a thorough preparation of the soil, and deep trenching is practised. If the soil will admit, 3 feet deep is none too much. Abundance of manure, too, it is needless to say, is used, and so is water when required. Mr. Beckett believes in testing sorts that appear to possess merit. At the expense, perhaps, of being a little tedious, I purpose taking each vegetable separately, making a few remarks on each, as by this plan a few hints may be conveyed to those who are anxious to learn.

ONIONS.—In a collection of vegetables Onions are an important unit. The practice which is now universally adopted by up-to-date exhibitors is that of growing Onions from January-sown seed as compared with the autumn sowing of Tripoli varieties for the shows in August and onwards. An Onion that does not weigh 2lb. in August nowadays is not thought much of; it is not uncommon to see them weighing 3lb. Some 1,200 bulbs were grown at Aldenham this year. As to variety, Ailea Craig, Cranston's Excelsior, Carter's Record, and Ne Plus Ultra are grown. The same plot of ground has been chosen for this crop for the last ten years, which entirely refutes the idea that a yearly change is necessary. A thorough preparation, such as deep trenching and manuring, is annually given. The seed is sown in boxes in gentle heat early in January; the plants are pricked off into other boxes, kept growing steadily and sturdily until the middle of April, when they are planted out in rows 15 inches apart and 14 inches from each other. The surface of the soil is kept stirred and watered every ten days during dry weather. An occasional sprinkling with Clay's Fertilizer is given; mulching the surface is not practised on the heavy soil.

PEAS are important in a keen competition. The new Pea, Edwin Beckett, has done much to raise the quality of this vegetable, and is one of Mr. Beckett's own raising. The pods are large, quite shapely, and well filled with large Peas of excellent flavour. Good as this Pea is Mr. Beckett has succeeded in raising another superior to it. In the new sort it is not an uncommon occurrence to find eleven and twelve Peas in a pod. It grows 6 feet high, and crops freely. As early sorts Early Morn and Daisy are highly thought of, followed by Duke of Albany and Alderman, with Autocrat, Michaelmas, Masterpiece, and The Gladstone for later supplies. The first sowing is made at the end of January in boxes, and outside early in April, with regular successions. Deep digging, plenty of manure, and abundance of space are the salient points to observe, with attention to providing support for the haulm.

POTATOES are considered, and properly so, as quite one of the leading dishes in a collection. Mr. Beckett does not grow a Potato simply on account of its appearance. Duke of York, Snowdrop, and Sir John Llewellyn are the leading early varieties, with Windsor Castle, The Guardian, Yeoman, King

Edward VII., Eightyfold, Reading Russett, Up-to-Date, Satisfaction, Lord Rosebery, Edgocote Purple, and Purple Perfection to follow. Leaf-mould is a fine addition to the natural soil here for producing clear skinned tubers. The seed is most carefully selected, a 2oz. set is chosen and abundant space provided. The rows are 3 feet apart and the sets half that distance.

RUNNER BEANS have made tremendous strides in popularity as exhibition vegetables during the last ten years. With the advent of the introduction of Sutton's Al variety much was done to popularise this vegetable in the exhibition tent. At Aldenham Lye's Favourite is thought most highly of; shapely succulent Beans 13 inches long are obtained from this variety. In addition Hackwood Success, Ne Plus Ultra, Prizewinner, and Best of All are grown. They reach 13 feet high, which is an indication of the kind of crop produced. The seed is sown in boxes early in May, and the plants are put out in rows 15 inches apart, with the plants 6 inches. An ample supply of manure is added to a deeply-dug trench for the plants in good time to allow it to settle down fully.

CARROTS are exceptionally good at Aldenham this season. It would be difficult to imagine a finer dish than that of Summer Favourite staged at the recent display in the Royal Horticultural Society's new hall. This and Intermediate are mainly grown. A deeply trenched western border is the site chosen. The rows are 18 inches apart, and the plants are thinned to 15 inches. The first week in April the seed is sown for the general crop, and in frames in February for an early supply. In the open a light mulching of old Mushroom bed materials is employed.

E. MOLYNEUX.

(To be continued.)

CORRESPONDENCE.

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

ERADICATING WEEDS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I noted an answer to a correspondent in your paper about a fortnight ago in reference to the eradicating of weeds on lawns. Your reply was to the effect that you had heard of no better way than to cut out the weed or to drop a little poison in the centre of the plant from a brush. We have used with such excellent results on our lawns "the Wikeham Weed Eradicator" that I think it might interest some of your readers to know about it. It is a tubular staff, 36 inches long, fitted with a self-acting valve so arranged that when filled with a reliable weed killer by simply pressing the point into the plant enough liquid is injected to destroy it. We employ women to use it. The weeds turn brown about the second day, and by the fourth or fifth day shrivel up and die. It is so much more effectual and so much quicker than cutting them out that I advise my friends to use it. We get them from the Killet Chemical Company, Liverpool.

Kent.

G. FAUDEL PHILLIPS.

POTATO AND WHEAT CROPS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I do not at all like to criticise so eminent an authority as Mr. A. D. Hall on matters agricultural, but I cannot allow the suggestion to pass without comment that an acre of wheat is valued at £12. In this county, where wheat growing is considered to be pretty well done, Mr. Hall's estimate is much too high. If the land produces the average crop of one load, ten sacks or forty bushels per acre is considered good. Assuming the

wheat to weigh 63lb. per bushel, it will fetch in the open market £8 per 5qr., or at the most £9 for seed. I frequently hear of 60 bushels per acre crop, but never but once have I grown that quantity, and certainly have not seen it more often. The average yield then is £8 per acre for many hundreds of acres, and is a price which satisfies farmers in this county at the present time. When I tell them of Mr. Hall's estimate they smile. When he quotes the price for an acre of Potatoes at £35 he is certainly nearer the mark; in fact, I should be inclined to put the return a trifle higher.

South Hants.

E. MOLYNEUX.

VICTORIA REGIA IN ROTTERDAM GARDENS.

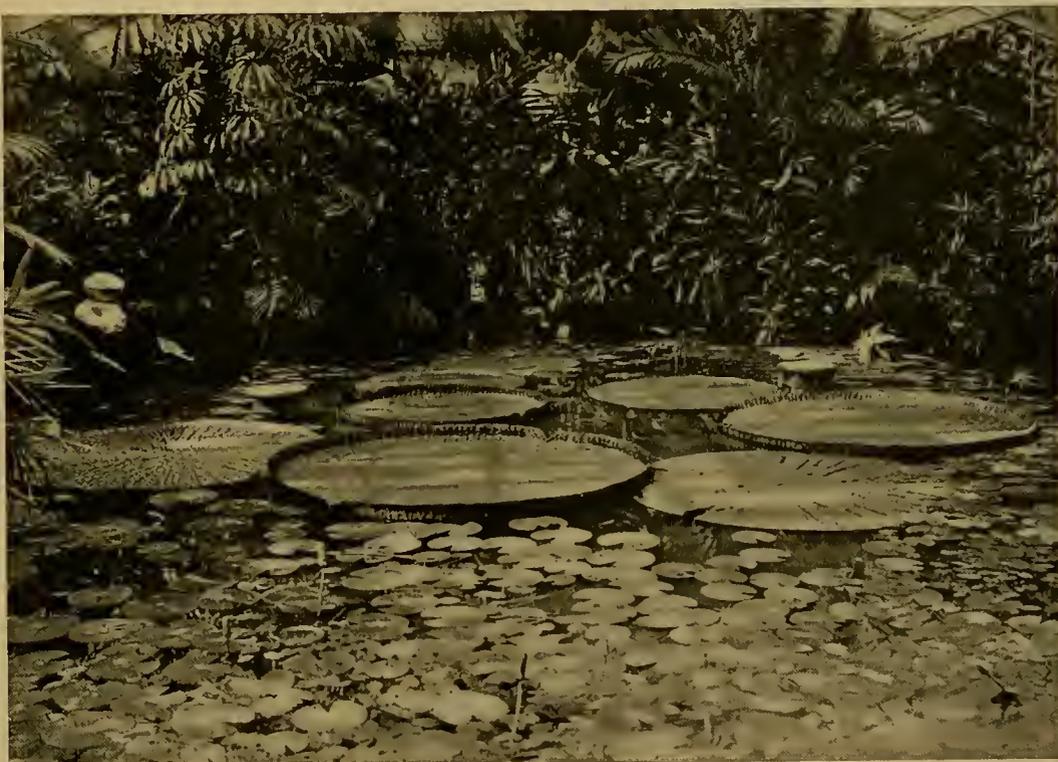
[TO THE EDITOR OF "THE GARDEN."]

SIR,—A week or two ago when in Holland I took the accompanying photograph in the Zoological Gardens at Rotterdam. I think perhaps you may like to publish it in THE GARDEN. I say the

all its privileges. I venture to submit that these outside attractions, as one may well term them, bring into the gardens a great many people who would not otherwise be inclined to go, and, unconsciously perhaps, they receive influences from, and an education in, horticulture and natural history that otherwise they would not get. I have wondered whether it would be possible to introduce into England something of the kind. I know that a great many people are attracted to Kew by the Gardens, which in themselves are beautiful and interesting, no matter how little the visitor may care about horticulture. But, at the same time, it seems to me there are ways in which the gardens might be made even more attractive.

SURREYITE.

[We print this letter, as the illustration is interesting, but we hope the restfulness of the Royal Gardens, Kew, will never be disturbed by a band. It is the one place near London to which those who wish to enjoy the flowers and trees of this great botanic garden can go without disturbance from the blare of trumpets. We recommend our correspondent to take a season ticket for the



VICTORIA REGIA IN THE WATER LILY HOUSE, BOTANIC GARDENS, ROTTERDAM.

Zoological Gardens, but this is hardly correct, for the gardens there are a sort of combination of our Zoological Gardens and our Kew Gardens. From a horticultural standpoint, although there are some interesting plants and houses, I think the Rotterdam Gardens cannot be compared to Kew, and the collection is nothing like as extensive and comprehensive as is the collection of animals and birds, which, in many respects, is superior to our Regent's Park collection. I think, though, there is one feature about the Dutch gardens that is particularly commendable. There is a magnificent concert hall, seating something like 2,000 people I should imagine, in which very high-class concerts are given from time to time, and a full band performs every day. One can sit under the shade of the trees, sipping one's drink, listening to the music, and looking across the beautiful gardens or watching the numberless visitors. The Rotterdam Gardens are not public property, but belong to a society that boasts of a membership of something over 5,000. For something under a sovereign yearly a season ticket can be obtained, which admits its holder at any time to the gardens and

Crystal Palace, or pay a penny for a chair in one of the London parks during band time and take his ginger beer with him.—Ed.]

POTATO NORTHERN STAR.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Referring to your correspondent's letter in your issue of the 22nd inst. as to the overrated qualities of the above-named Potato, I write to tell you that from 1lb. of Northern Star (three Potatoes), purchased this year, 190lb. were dug up on the 18th inst., and not one diseased. It is quite true this variety continues to grow very late. The Potatoes were grown in a kitchen garden.

LAWRENCE L. SAVILL.

The Woodlands, Chigwell Row, Essex.

RAMBLER ROSES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In the interesting "Notes from Swanswick" in THE GARDEN of the 1st inst. (page 223) there appear some remarks about the poor flowering



FUCHSIA RICCARTONI IN SARK. (Figure to show height of bush.)

of such Roses as Dorothy Perkins and Crimson Rambler. This year in Scotland I do not think the same experience has been general. Dorothy Perkins is not yet so widely grown as to be everyone's plant, as it ought to be, but it has flowered well with me, and in other gardens where I have seen it this year. Crimson Rambler has generally done very well. Aglaia has also done well this year.

Carsethorn, by Dumfries.

S. ARNOTT.

FUCHSIA RICCARTONI.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—During a recent visit to the Channel Islands I was struck by the pleasing effect produced by large specimens of this free-growing and beautiful hardy Fuchsia, which in that genial climate attains a great size. The fronts or side walls of many cottages are draped with its graceful sprays of compact foliage and abundant flowers. A photograph of one such cottage, which I enclose, might perhaps be worthy of reproduction in your pages. It is situated in Sark, and is called La Rosée.

H. M. W.

FLOWERS FOR A CHALK PIT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Few have the good fortune to possess chalk pits or disused quarries for gardening purposes. Suitably furnished, such places become very interesting. The following may be suggestive to "H." (see THE GARDEN for the 15th inst., page x.), who does not state if the pit has only recently been disused or if considerable weathering has taken place. In the latter case, however, weeds will have become established, and, if poor stuff grows, there

is no doubt that good plants may also be made to thrive. A chalk pit about 280 feet in circumference and 30 feet deep had been disused for a score of years. Originally on the outskirts of very poor and summer-scorched pasture, it came, when the surrounding land was built upon, to be included in a garden of about ten acres, and was as attractive as possible by planting many shrubs and plants, the result, considering the circumstances, proving quite satisfactory. The first thing taken in hand was the blotting out of an ugly fence surrounding the mouth of the pit—a necessary erection, because of the presence of children. This was done by a liberal planting of fine plants—Rhamnus catharticus, Rubus laciniatus, Buxus, Prunus spinosa, and Mahonia. Although the surface soil was only 6 inches or so in depth, these shrubs succeeded well. The Prunus, Rubus, and Rhamnus, planted closely but irregularly, and in lines of varying breadth, soon closed up, forming a picturesque and effective barrier.

One Rubus to six of the next were used, as it is a smothering plant if too plentiful. The autumn coloration of the Mahonia was very fine; far better than on fertile soils. The sides of the pits had shelves here and there, these alternating with almost perpendicular faces, and to clothe these the native Traveller's Joy (Clematis Vitalba) was the principal plant used. Several strong roots were lifted from hedgerows in autumn and planted in holes 3 feet deep made with picks. After insertion these holes were filled in with ordinary garden soil. Most of the Clematis, however, were raised from seed, sown as soon as ripe in autumn an inch deep in holes in the chalk that had previously been filled with 12 inches or so of good soil. From these seeds plants were produced the next year and trailing shoots the second.

The principal attraction of this plant lies in the feathery awned fruit, this remaining in perfection many months, especially on a vertical face. The plants named previously were also used on the inner sides, together with Hypericum calycinum, H. androsæmum, and the white Lavender Cotton (Santolina Chamæcyparissus). On the floor the Scots' or Burnet Rose (Rosa spinosissima) and several garden varieties of it did very well. Where chalk is mixed with earth, or earthy strata runs through it, the filling in of holes with a few spadefuls of soil may be unnecessary. But a little help at the start is a great after-gain in many instances, especially in chalk pits only recently disused. Of course, no special loam, &c., is required, ordinary soil serving the purpose well, and in this instance it was always given. After the roots run through their planting soil they penetrate and appropriate the chalk. Two pretty plants used were Veronica spicata and Aster Linosyris, both uncommon British plants, flowering from September onwards, and delighting in a sunny position. This latter plant is sometimes classed in nurserymen's catalogues with the Michaelmas Daisies, but it is very different

with its unrayed flowers and narrow leaves from the American Asters, and never looks so well in the border as in the rock garden, &c. Its flowers, on wiry stems 12 inches or so long, springing from the chalky crevices, remained bright for nearly two months. As free-growing summer-flowering plants the various species of Linaria did well. L. purpurea, which I have since seen in thousands on an old and dry castle wall, was very showy with its late spikes of bright purple flowers. L. repens is sweet-scented, and reaches only 1 foot in height under arid conditions. A white variety is more recent. L. vulgaris (the common yellow Toadflax) and its peloric variety did well. L. Cymbalaria and L. C. alba became too frequent, and are best planted in one spot only.

From out of the chalk Wallflowers sprung with stems an inch in diameter, a thickness needful to support plants 5 feet through. Antirrhinum majus was not so satisfactory, but there is little doubt that this position would suit the small creeping A. Asarica and A. glutinosum. The Sun Roses and Rock Roses are amongst the most satisfactory of plants for any sunny, chalky spots. Helianthemum canum, with hoary foliage and bright small flowers, forms very dwarf creeping carpets. It is a native, and should not be forgotten. Many of the smaller Cisti are scarcer, but are even more beautiful. C. formosum is especially good, with its blotched yellow flowers. Dryas octopetala, with spreading carpets of good green, flowered profusely. Lotus corniculatus and Hippocrepis comosa formed sheets of yellow flowers. But of these Vetches the best for covering surfaces quickly are the various species of Coronilla, especially Coronilla varia, with rosy flowers, which will even surpass in this respect the Clematis, so vigorous are its running shoots. C. montana and C. iberica, yellow flowered, are always good. Athionemas, Gypsophila prostrata, and a form sold in nurseries as monstrosa are excellent chalk plants, but should be planted near the eye, as the pink flowers when afar off are not visible against the chalky background.

Plants of Edelweiss collected in the Maritime Alps perished, but seed sown in spring on the level portion germinated freely and flowered the succeeding year, the down, as usual on a dry chalky soil, being much whiter than on those in richer soil. The closely related Antennaria tomentosa should be planted for its white foliage, Anaphalis margaritacea for its late "everlasting" flowers, while several shrubby Helichrysums and Senecio Cineraria and allied forms will survive the winter in most parts if established in such sites as these. The Alpine Rhododendron hirsutum does not dislike chalk, if moisture and a suitable rooty medium can be had. To supply such the holes in planting should be filled in with peat. Chalk often crumbles away, thus if shallow rooting Saxifrages or House-leeks are planted they should be placed on the firmer portions. Another objection to chalk is its whiteness, dryness, and want of form. These one can hardly alter, and to introduce stones, rocks, &c., may make things worse unless very carefully distributed. Another disadvantage arises from the chemical composition which restricts the choice of plants. In an old sandstone quarry, on the other hand, one might, with little or no preparation, grow anything, granitic or calcareous. Among other plants noticed on limestone soils, and which would probably thrive well in a chalk pit, are Euphorbia Myrsinites, with prostrate branches and fleshy leaves; Cotoneaster horizontalis, red berried, flat spreading branches, and the purple-leaved variety of Prunus spinosa. The Italian Bellflower, Campanula isophylla, C. i. alba, C. fragilis, and C. garganica all love, in this country, sunshine and warmth, and this applies equally to the shrubby Globularia nana, seldom well flowered in our climate.

D. S. FISH.

Royal Botanic Garden, Edinburgh.

CORDYLINE INDIVISA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This handsome Cordyline, of which an excellent illustration appeared on page 261, is not quite so rare in cultivation as Mr. J. Ryan, who supplied

the accompanying note, appears to think. It is represented in several gardens in the south-west, notably at Enys (where there are two fine specimens), Trewidden, Menabilly, and Trelissick. I believe this *Cordylina* has only once flowered in the British Isles, this having occurred in Mr. Dorrien-Smith's gardens at Tresco Abbey, Isles of Scilly, in April, 1896. An illustration of the plant in flower appeared on page 86, Vol. XLIX. of THE GARDEN. There was formerly a good example in the gardens at Lakelands, County Cork, but since the late Mr. Crawford's death the estate has been sold, and I am unaware if the plant is still in existence.

S. W. FITZHERBERT.

POLYGONUM BALDSCHUANICUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—My experience of the hardness of *Polygonum baldschuanicum* in accepting any conditions of soil or position may prove useful. I have a plant which grows in a dry and very warm border, and though dormant for about two years after establishing itself, it has made very great growth, bloomed twice this year, and thrown out strong branches in all directions. The blooms have been so abundant that the plant looked like a mass of snow, and made a very pretty effect in my border. The *Polygonum* planted in a moister situation made an earlier start, but has not grown up so strong and beautiful, nor flowered so abundantly.

Brasted Rectory, Kent.

M. R. RYND.

BELLADONNA LILIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose a photograph of a row of *Belladonna* Lilies. The *Belladonna* Lilies are, as you see, under the wall of the hot house, and this year threw up 330 separate stems. Most of them I brought from Madeira in 1864; they have been removed twice. The *Farleyense* Fern, of which I also send a photograph, has been in our possession since 1869. I was interested in an account you gave of *Belladonna* Lilies, and this induced me to send an account of ours.

M. PROCTER BAKER.

Sandhill Park, near Taunton.

GARDENING OF THE WEEK.

FLOWER GARDEN.

LAWNS AND LAWN-MOWERS.

WHERE they are bordered by deciduous trees the lawns will now require daily sweeping. In other places worm casts and the various *débris* blown about at this time of year will necessitate the frequent use of the broom. As a rule, horse machines are too heavy for late autumn use, and the final mowings are better done with the lighter hand lawn-mowers. Before the machines are put away for the winter they should be thoroughly cleaned, and such parts as the bearings, chain, knives, &c., well oiled. The machines should then be stored in a dry place, and covered with a tarpaulin or piece of hessian. The lawns should be frequently rolled and the verges cut. The falling leaves demand a deal of sweeping; the main drives, all frequented gravel walks, &c., must be swept almost daily. Further away from the mansion the same prim neatness should not prevail. These leaf-strewn paths have a charm of their own, and during the time of falling leaf are quite in keeping with the season and their surroundings. When all the leaves have fallen these outlying paths should be raked and swept. If not required for making leaf-mould, or to be carted to the brick pits, the leaves should be made into big heaps close by—a few branches of Silver Fir laid on the top will prevent their being blown about—to form a valuable store in case of future need. On no account should leaves be burnt; the amount of ash they yield is comparatively infinitesimal, but decayed, or partially so, they are most valuable either as top-dressing or to incorporate with the soil.

WALKS.

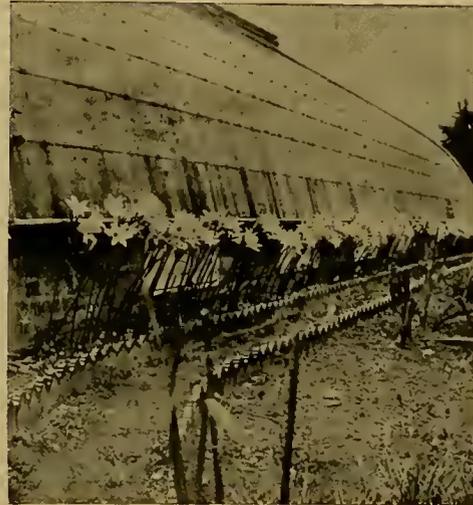
Catch-pits should be frequently cleaned, or a sudden storm may do considerable damage. If there are any weeds to be seen give the paths an application of weed-killer, choosing a fine day after rain.

ARUNDO CONSPICUA.

The plumes are now shabby and should be removed. From June until quite recently this New Zealand Reed has been, except, perhaps, in point of mere size, superior to its relative, the Pampas Grass, which has only now come into flower. The arched plumes of the *Arundo* are more graceful than the stiffer Pampas Grass, and its looser racemes do not hold so much moisture and get so easily broken. In the colder parts of the country where its hardness is doubtful some protection is advisable, and the Giant Reed (*Arundo donax* and its varieties) will also require some protection.

MONTBRETIAS.

These graceful bulbous plants grow so freely that in three or four years they become a tangled mass. It is advisable to lift them every third year, and, selecting the strongest corms, replant.



BELLADONNA LILIES AT SANDHILL PARK.

The old foliage should be left, as it forms a good protection to the tender young growths in the early spring.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

HELLEBORUS NIGER (CHRISTMAS ROSE).

THE flowers of this during the winter are valuable for various purposes. The plants will flower freely in pots, but no attempt at forcing them must be made or probably they will fail to flower at all. Lift the roots from the open ground and place them in suitable sized pots or in deep boxes, in soil of a peaty nature, and afterwards put them in a frame that can be kept close for a time. As they are required for flowering remove them in batches to the greenhouse, where they can have air when necessary, and water in abundance, as well as a little shade. Providing the flowers are fully developed and just beginning to expand they can be assisted to open more rapidly by placing them in warm water in a moderately warm close temperature.

EAST LOTHIAN STOCKS

are now being potted singly into 3-inch pots. They will be grown well on during the winter, and be in flower by April and May next year. After potting place them for a short time in a cold frame and keep close for a few days. They like plenty of light, and should be placed near the glass. When well established they can be removed to the greenhouse shelf. As the plants grow put them into

4-inch and 6-inch pots, and during the winter keep the soil about their roots rather dry, but do not allow them to suffer from lack of moisture. Green fly is sometimes troublesome, but immediately they appear fumigate very lightly with XL All.

GARDENIAS.

Though these plants at any season will bear heat and moisture in abundance, they will develop a firmer and better flowering growth if, during November and December, they are given a temperature of 55° to 60°. On growth of this kind flower-buds will readily form, and there is less likelihood of either thrips or green fly attacking it. The increase of mealy bug may be checked by syringing the plants frequently with petroleum and water, at the rate of a wineglassful of the former to four gallons of the latter. To plants that are well rooted give an occasional dose of liquid made from sheep manure and soot, or sprinkle a little of Clay's Fertilizer on the surface of the pots.

J. P. LEADBETTER.

Tranby Croft Gardens, Hull.

FRUIT GARDEN.

PEACHES.

If the roof lights were removed from the early Peach houses the sooner they are restored the better. The trees are now leafless, the wood thoroughly ripe, and the buds forward. The final pruning should be attended to if it is intended to start the trees early. Remove all the old bearing wood that can be spared, and also any very gross shoots. I do not favour shortening back the bearing wood of Peaches and Nectarines unless one side of the tree is outgrowing the other; then pinch out the points of the shoots during the growing season. To destroy red spider or scale the trees should be carefully untied and washed with Gishurst Compound, 4oz. or 5oz. to the gallon. Cleanse the house thoroughly, lime-wash the walls, and top-dress the borders. Tie in the main branches of the tree first, and afterwards the smaller shoots, allowing about 6 inches between each. Young trees should be top-dressed with fairly strong loam, lime rubble, and wood ashes; older trees should have some bone-meal added. Later trees should be lifted and root-pruned before the leaves fall.

THE ORCHARD HOUSE.

The latest trees are cleared of fruit, and should be either top-dressed or repotted. Reduce the soil of those too large to move into larger pots, and return to the same pots, using good fibrous loam, lime rubble, wood ashes, with some bone-meal and soot. See that the pots are clean and the drainage sufficient, make the whole firm by well ramming, and give one good watering before putting the trees outside. The season has been most favourable for the ripening of the wood. They should be plunged at once outside in a sheltered position. See that the pots stand on a firm ash bottom to keep out worms. Before severe frosts occur the spaces between the pots should be well packed with Bracken or litter; then they may be allowed to remain out until required for starting. Give what pruning is necessary then. If very early forcing is contemplated the house should be prepared, so that the trees may soon be placed in position. Select those with plump buds and ripened wood, those in medium-sized pots being preferable. Good varieties of Peaches for pots are Alexandra, Hale's Early, Waterloo, and Condor; Nectarines, Cardinal, Early Rivers, Lord Napier, and Stanwick Elruge. Wash the pots and arrange the trees, keeping the shoots near the glass, so that each tree has plenty of light. Very little pruning will be required, and, unless this is properly understood, it should be deferred until the fruits are set and the young growths are pushing freely.

Impney Gardens, Droitwich.

F. JORDAN.

ORCHIDS.

CLEANING HOUSES.

THIS important work should be proceeded with as soon as possible to allow of all light possible reaching the plants. When washing the outside see that the spouting is blocked, to prevent dirt from entering and contaminating the soft-water tanks.

When starting to wash an interior remove a certain number of the plants to allow the workmen plenty of room. All woodwork, glass, and stages should be well scrubbed, using warm water in which a little soft soap has been dissolved; then see that all walls, ledges, and spaces under pipes are cleared of rubbish and made thoroughly clean before commencing to rearrange. This occasion is favourable for introducing a good system of staging where plants are on inverted pots. On referring to my notes in THE GARDEN, February 20, readers will find the system we use described. When rearranging the lightest positions should be given to those Orchids most in need of strong light during the winter months. Plants with growths that require tying should be seen to, and all plants found infested with insects should be cleaned.

SPONGING.

After all the houses have been washed inside and out, every opportunity should be taken to sponge the plants; this is needful at least once a year. Few of our Orchids are sponged more than once a year, but if one becomes dirty it must, of course, be cleaned at once.

LÆLIAS IN FLOWER.

L. anceps, *L. autumnalis*, *L. albidia*, and *L. gouldiana* are now developing their flower-spikes, and every care should be taken to prevent the spikes coming in contact with the glass. Give them the lightest position in the intermediate house where air is freely admitted through ventilators under the stage. It is impossible to grow these Mexican *Lælias* in a stuffy atmosphere. While developing their new bulbs and flower-spikes water will be required when the plants become fairly dry, yet only enough to moisten the compost should be given.

LÆLIA GRANDIFLORA (SYN. *L. MAJALIS*).

This beautiful species has now matured its new bulbs, so no more water will be required till early March. All available light should reach it in the position afforded in the intermediate house, taking the greatest precautions against drip.

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

KITCHEN GARDEN.

SELDOM in Scotland have we enjoyed such a dry and warm autumn. At this date (the 19th inst.) 2° of frost only have been registered in this garden, although a few miles inland it has been much colder. A splendid opportunity has been afforded of giving gardens a thorough cleaning, as the rainfall has been very light. Every advantage should be taken to go over all the ground with the hoe. Improvements and alterations of all kinds should now be carried out, as spring brings so many duties that cannot be put off. The repair or relaying of Box and other edgings should be pushed forward. Manure should be got ready and placed on plots that are to be dug before winter. Lift crops that are now ripe, as this work is much better done in dry weather. Take off yellow leaves from Sprouts, Cabbage, &c. Remove from the garden all stumps, Potato haulms, and other rubbish.

TOMATOES.

To provide supplies during winter and early spring these will require careful treatment. The size of pot should be smaller at the final potting than that used during the summer months. Remove all lateral growths as they appear, and at midday pollinate the flowers. Afford plenty of ventilation when the weather is good. Little damping of the houses will be needed, and the plants should not be moistened overhead. A dressing of a good fertiliser should be given about once a fortnight. If protection has been given to outdoor plants their fruits will continue to develop. They should be gathered as soon as they are of useful size and placed in a warm house to ripen.

CUCUMBERS.

Those intended to supply fruits during winter are now well established. They should not be too heavily cropped in the earlier stages of growth. Allow them to grow strong and sturdy, a night

temperature of 60° being most suitable. Carefully train the plants on the trellis so as to admit as much light as possible. Remove all the male flowers and stunted or deformed fruits. The evaporating pans may be kept filled with liquid manure. This will cause a healthy and clean growth. Slight top-dressing may be given frequently, as the plants increase in growth and vigour. The roof of the house should be washed both inside and out, so that the plants may have full sunshine.

THOMAS HAY.

Hopetown House Gardens, South Queensferry.

THE INDOOR GARDEN.

DIPLADENIAS AND THEIR CULTURE.

DIPLODENIAS are not so often seen as they deserve to be. They ought to be grown for the sake of their lovely flowers, and they are not so difficult to cultivate as is generally believed. Brazil and Bolivia are the native countries of many species. *D. atropurpurea*, *D. splendens*, *D. Rosa campestris*, and *D. illustris* have handsome foliage as well as most richly-coloured flowers. *D. vincæflora*, on the contrary, has small and narrow leaves, with flowers somewhat similar to those of the little Periwinkle of our woods. This is rare. I wonder if it is still to be found in botanical gardens. In *D. urophylla* the leaves are large and ornamental; the flowers are as large as those of *D. atropurpurea*. One of the most remarkable species is *D. nobilis*; it was introduced by François de Vos, collector for M. Alexandre Verschaffelt, Gand, in 1847. He found it in the province of Sainte Catherine in Brazil, whence he also brought *Lælia purpurata*. *D. nobilis* well deserves its name for its superb bunches of salmon-pink and white blossoms. One variety, *rosea*, which was introduced at the same time, has its colours more strongly marked.

Dipladenia Harrisii is a species of great vigour, with large golden-yellow flowers. These produce an extraordinary effect when the plant is at the height of its beauty. Bentham called this plant *Odontadenia speciosa*. In *D. crassinoda*, whose blossoms are rose-coloured similar to those of *D. splendens*, the *Echites* genus (from which the *Dipladenias* were separated by De Candolle) reasserts itself. *D. crassinoda* has thicker leaves and its flowers are smaller; they resemble those of the single-flowered *Nerium*. In the older collections there could also be found *D. acuminata*, *D. bolivienis* (introduced by Auguste van Geert in 1869), *D. brearleyana* (1874), *D. flava* (1845), *D. insignis*, *D. amabilis*, *D. eximia*, *D. hybrida*, *D. illustris glabra*, *D. martiana*, *D. Sanderi*, &c. Other species also probably exist. Some *Dipladenias* have a large, woody tuber. *D. acuminata*, *D. amabilis*, *D. atropurpurea*, *D. crassinoda*, *D. Harrisii*, *D. houtteana*, *D. magnifica*, *D. splendens*, and *D. urophylla* do not possess this tuberous stock.

There are two methods of culture, depending on the kind of *Dipladenia*. The tuberous kinds ought to rest completely during the winter; the others, *D. nobilis*, *D. illustris*, *D. Rosa campestris*, *D. vincæflora*, &c., need much less rest. The stove, or at least the temperate house, is necessary for these plants. When it can be done they should be planted out and the twining stems trained round pillars and on trellises. All hot-house climbing plants are seen at their best under these conditions. The *Dipladenias* do not present the inconveniences of some climbing plants; few insects attack them. A moist, fairly light soil suits them. When planted in pots care must be taken with the drainage, and make the soil firm. Repotting should be done in the spring, and in comparatively large pots in order to avoid yearly repotting. Plenty of light is necessary; they ought not to be shaded except on the warmest days.

In the warm season watering and syringing should be frequent. In winter the species with tubercles should be kept in complete repose; the others should be only moderately watered; in fact, just enough to keep them from withering. When

cultivated in pots they should be trained on light frames, constructed according to the fancy of the grower. One of the prettiest shapes is that of the pyramid; the sphere shape is also very suitable. The propagation of the *Dipladenia* is effected by means of cuttings of half-ripe wood; tender shoots easily perish. Place them in a sandy soil over a moderate bottom-heat in a hot-house. This operation should be effected in the spring, for the tuberous varieties as well as for the others. To prevent insect attacks the cuttings should be steeped in water impregnated with a tenth part of tobacco juice. Seeds can only be obtained by artificial fertilisation. Sow them in March in the hot-house near the glass. Seedling plants will not bloom till the following year.

AD. VAN DEN HEEDÉ in *La Revue Horticole*.

LEONOTIS LEONURUS (THE LION'S TAIL LEONURUS).

THIS plant was grown nearly two centuries ago (1712 to be exact) in the Chelsea Garden, and one wonders why such a showy plant is so seldom met with. From records in old works there is evidence that at one time it was fairly common, more especially on the Continent. A spray of it is figured in THE GARDEN of January 24, 1874. Of a semi-shrubby habit, it is a native of South Africa. To a certain extent the cultivator can determine the height of the plants to suit the purpose for which they are required. By rooting cuttings at different times and stopping plants can be had in flower from 1 foot to 6 feet in height. Cuttings root readily in a propagating frame with a gentle bottom-heat. When potting on a very rich soil should be avoided, as a too robust growth is the chief cause of failure in flowering it. After the flower-buds are set stimulants may be given with advantage. To obtain well-ripened growth plants should be placed in the open air during summer. It has, I believe, been tried as a bedding plant. Used for this purpose, the chief point will be to get the plants into flower soon enough, as in the event of early autumn frosts the flowers would soon be spoilt. Under the name of *Phlomis Leonurus* it is figured in the *Botanical Magazine*, tab. 478. The genus *Leonotis* contains about a dozen species, and belongs to the natural order Labiata.

A. O.

MISCELLANEOUS.

TOBACCO GROWING IN IRELAND.

IN an interesting article in the *Irish Times* on this subject a writer states: "The Department of Agriculture had agreed to assist anyone who would experiment with Tobacco culture to the extent of ten acres. Owing to circumstances, for which, perhaps, neither the Department nor any individual agriculturists are responsible, the whole brunt of the experiment fell upon Colonel Everard. He agreed to lay down twenty acres in Tobacco. The Department, for their part, agreed to bear the cost of whatever barn and plant was necessary for the curing and drying of the Tobacco. Thus it came to pass that four suitable areas in the charming lands round about Randalstown, County Meath, were set apart for the experiment. The seedlings were secured in Virginia and Kentucky, U.S.A., and the very best kinds procurable were brought over. They were planted early in the spring, and, suitably treated, they soon sprang into vigorous life and flowering beauty. But when they were within two months of the harvest time no barn had as yet been added to the architectural features of Randalstown. It looked badly for the success of the experiment then. By vigorous strides the work was pushed on, and the barn was completed just in time to receive the ripe harvest of the twenty acres.

"The barn once up and perfectly equipped, the fields were without delay stripped of their Tobacco crop. This had, of course, to be done by stages, as the whole crop could not be treated at once in the barn, ample and excellent though it is.

It was ready for use on September 4, and since then the process of curing, sorting, and drying has been going on continually. It is going on still, and is giving employment to a not inconsiderable number of local hands. With moderate planting the twenty acres have yielded an aggregate of about 14,000lb. weight of leaf. This is a remarkable result for what was practically an initial experiment. It is estimated, however—and indeed proved—that the average yield per acre will be about 1,200lb. of leaf. Good average prices will be forthcoming for this. Dublin manufacturers and experts have priced the samples already grown, and have returned their estimate at as high as 7d. and 8d. per pound. At these figures it is easy to work out a very decided margin of profit, even allowing for the heavy duty to be paid in full.

THE FRUIT GARDEN.

PLUM BELLE DE LOUVAIN.

THIS is one of the most consistent fruiting Plums. It should be grown in every garden. Its fruitfulness is largely due to its early blooming. Plums, like all stone fruits, must open their flowers in advance of the foliage if a good crop of fruit is to follow. When the flowering period is late, thus causing bloom and foliage to unfold



NEW PEAR S. T. WRIGHT.

Natural size. Given an award of merit at the Royal Horticultural Society's Fruit Show on the 14th inst.

together, even though the weather is more genial, most of the blooms ultimately turn yellow and fall off. The above variety is in season here at the end of August, hanging well into September. The fruit is large, of oval shape, and dark purple. It is a first-rate culinary Plum. It does well as a pyramid, but upon a wall with an eastern aspect it does better.

Bishop's Waltham.

G. E.

APPLE BRAMLEY'S SEEDLING.

Soon this late-keeping Apple will get its due share of recognition at the hands of planters where heavy crops are required at a minimum of outlay and little attention afterwards. No variety that I know is more accommodating in the manner of training than this. As a tall orchard standard, a half-standard over a bush, as a bush itself, or as an espalier it is equally good. Its constitution is so vigorous that it will flourish in the strongest clay, and is not liable to canker like many of the large-

fruited varieties. To espalier form it is peculiarly adapted, as the spurs are thickly placed. Its foliage is a dense green colour, giving it a robust and handsome appearance alongside a garden path.

E. M.

PEAR S. T. WRIGHT.

THIS new Pear is the product of Beurré Bachelier and Williams' Bon Chrétien. It is an early variety of good flavour, as may be expected from the inter-crossing of two such good sorts. It was exhibited by Messrs. James Veitch and Sons, Limited, Chelsea, at the great fruit show of the Royal Horticultural Society on October 4. It then received an award of merit from the fruit committee.

RED CURRANTS AS CORDONS.

KNOWING how extremely valuable the above fruit is at any time during its usual season, one often wonders why it is not more grown for late autumn supplies. No perishable fruit hangs longer than this after it becomes ripe, if it is kept dry during very wet weather. Old garden lights or shutters answer for this purpose well, besides keeping off frost. Nets which must be put on early also help considerably to prevent frost. The site for them should be a wall facing north, or as near this aspect as possible. The border should be well prepared previously by trenching, adding well-decayed manure, with plenty of burnt refuse if the soil is heavy. When the soil is settled prick the surface over and plant in early autumn for preference. In spring they should be cut down to within 6 inches of the current year's growth.

Single cordons, planted at 15 inches apart, will be found far superior to the ordinary bush shapes that are sometimes trained on walls. The fruit is finer and more freely produced, it keeps better, while pruning and summer pinching are carried out far more easily. The aim is to prune hard enough to produce fruiting spurs from bottom to top. Cuttings should be inserted in sandy soil in the open ground. Raby Castle and Comet are excellent for this purpose.

Hants. G. ELLWOOD.

APPLE RIBSTON PIPPIN.

IN spite of the new varieties of Apples that are added continuously to the list there is still a general appreciation of this old favourite. No doubt the position in which it is growing, and the soil in which its roots are planted, have much to do with its size, colour, and flavour. At Sandringham, where this Apple is much appreciated, huge crops are invariably gathered from horizontally-trained trees planted against a west wall. There it ripens earlier than in the open, has a rich colour, and the warmth from the wall gives additional flavour.

E. M.

RASPBERRY RED MERVILLE.

THIS is a valuable autumn-fruiting variety. It produces bunches of fruit 9 inches long, six and eight large fruits being ripe at one time. Where Raspberries are required for dessert this is really a first-rate one to grow. For kitchen purposes it is doubly welcome. To ensure success the plants must be pruned hard back the first or second week in March. A better plan is to prune half each

week, thereby prolonging the season of fruiting. The last pruned ones fruit on the current year's growth. Here this plant grows from 3 feet to 4 feet high, with fine strong growth.

Bishop's Waltham.

G. ELLWOOD.

INSECT PESTS.

APHIDES OR PLANT-LICE.

A LEAFLET has been issued by the Board of Agriculture and Fisheries as follows: Nearly all plants, in garden and field, and under glass, suffer from the ravages of aphides. These universal pests are most common in temperate climates, but even in the tropics whole crops are ruined by them. The aphids enemies of many crop and ornamental plants are very numerous in species. The aphides themselves are known by a great variety of names, such as green and black fly, smotherers, and dolphins, while the disease they produce is sometimes termed "blight."

They belong to an order of insects called hemiptera, which are provided with a mouth used for sucking and capable of piercing the structures of plants, upon the sap of which they feed. They undergo what is termed an incomplete metamorphosis, that is, there is no quiescent chrysalis (pupal) stage, and they feed throughout their whole existence.

They damage plants in a twofold manner, first by sucking out the sap and so weakening the vitality of the plant; and, secondly, by interfering with the functions of the foliage leaves by blocking up the stomata (or breathing pores) of the leaves with their excreta. This excreta is not only of the ordinary kind, but also consists of a sweet gummy substance called "honey-dew." This substance is passed out through two tubes, called "cornicles," situated on the back of the aphides. A few aphides such as the woolly aphid have no cornicles and produce no honey-dew. The skin of the plant-lice is provided with numerous glands which secrete either a waxy substance that covers the skin (Rose aphid, Bean aphid, &c.) or dense woolly masses (Woolly aphid, &c.). In both cases the excreted substances have the power of throwing off water and so keeping the insects dry.

Life History.—Aphides may be winged or they may be wingless; as a rule winged and wingless generations occur in each species.

The multiplication of aphides is very rapid, owing to the shortness of the time necessary for the young to attain the power of reproduction. Aphides not only breed in the ordinary way, but females may also, without any males being present, produce eggs which can develop, or they may produce live young. Some aphides live only on one kind of plant, the Rose aphid (Siphonophora roseæ) for instance; others live on two plants, which may be of different natural orders, migrating from one to the other, as the Hop aphid (Phorodon humuli) which migrates between the Hops and the Prunes; others live on several plants, as the Bean aphid (Aphis rumicis), which may be found on Beans, Peas, Docks, and Furze.

Some kinds, as the Rose aphid, attack leafage and shoots alike; others, as the Bean aphid, may even attack the fruit (pods); others the stem and twigs (woolly aphid). Not only may plant-lice migrate from plant to plant, but some can live both above and below ground, and may migrate from root to trunk or root to foliage (as the Phylloxera of the Vine and the woolly aphid of the Apple).

A typical life-history of an aphid may be as follows: The adult female or "Mother Queen" is wingless, and produces without the agency of a male, not eggs, but living young; these young in a short time resemble the wingless parent, and can themselves produce living young. This viviparous reproduction, where only females are present, can go on for many generations. Should a plant be covered with these aphides, and their food become scarce, winged females may be produced, which fly off to other plants and there deposit living young. Towards the end of the year, as cold comes on or food becomes scarce, males as well as females are

produced; these may be either winged or wingless. These females, after being fertilised, deposit eggs at the base of buds and on the stems, leaves, &c., of plants. These eggs remain over winter and hatch into the larvæ that become the "Mother Queens," with which this account of the life-history started. Some plant-lice live entirely during the winter in the egg state (Bean, Pea, Plum aphid, &c.), others mostly as insects, a few eggs only occurring (woolly aphid).

The effect of weather on aphides is very great. Dry, hot and sultry weather is favourable to them; the same conditions check the growth of the plant, and so the plant-lice soon overcome it. An excessive quantity of manure, especially nitrogenous manure, also predisposes the plant to aphid attack.

Remedies.—Aphides can easily be destroyed by spraying the affected plants with a soft soap wash. This is made by dissolving from 6lb. to 10lb. of soft soap in 100 gallons of soft water. The soft soap blocks up the breathing pores of the plant-lice and so kills them. Quassia is sometimes added;

used in the bee-keepers' "smoker," is said to be a very good remedy for green fly, and does not injure the most delicate flowers.

In all cases the aphides must be attacked as soon as an invasion shows itself, especially when the species of aphid has the habit, like the Plum aphid, of curling up the leaves and so of protecting itself.

Natural Checks—Several insects prey upon aphides, and should be encouraged. The chief of these are ladybirds and their larvæ (Coccinellidæ); hover-fly maggots, which are the larvæ of the Syrphidæ; the larvæ of the lace-wing or golden-eye flies; and various minute Hymenopterous parasites (Chalcididæ), which lay their eggs in the bodies of the aphides, and whose maggots destroy them.

Man cannot, however, rely solely on the services of these beneficial creatures, but must check the increase of the aphides by washes as soon as they appear upon his plants.

Fighting the Hollyhock disease.

Messrs. Webb and Brand, Saffron Walden, the well-known Hollyhock growers, write: "For the past thirty years the Hollyhock has been the victim of a virulent form of disease (Puccinea malvacearum), which has wrought great havoc amongst them by destroying their foliage and rendering them very unsightly just when they are coming into flower. This has baffled many in their attempt to grow them. In order to check the spread of this fungus we recommend the following remedy, which we have used in our nursery with satisfactory results. To 1lb. of Tobacco powder add a quarter of an ounce of finely powdered sulphate of copper, well mixed, dust the under surface of the foliage (or wherever attacked) with the powder every two or three weeks during the growing season. Choose a dull, still day for the operation; this will be found effectual." Should there be any difficulty in procuring the mixture, we can supply it direct in 1lb. packets, price 1s. 6d. each.

The late Mrs. Whytock.

Much sympathy is felt for Mr. James Whytock, gardener to the Duke of Buccleuch, at Dalkeith Palace, on account of the deep bereavement he has sustained by the death last week of Mrs. Whytock. Many who have enjoyed the hospitality of Mr. and Mrs. Whytock will hear the news with regret.

Chrysanthemums at Dumfries.

There is at present on view in the Corberry Nursery of Messrs. James Service and Sons, Maxwelltown, Dumfries, a fine collection of Chrysanthemums grown for large blooms, and mainly intended for exhibition. They comprise a number of the new French varieties, as well as the best of the older Chrysanthemums which have proved satisfactory in the south-west of Scotland. They are placed in two large houses, and, although the

collection as a whole is not fully in flower, a number not being required until November, there are many flowers of great size and quality, while those not in bloom or not fully open are giving great promise of splendid flowers. Among those observed and noted as giving excellent blooms fit for competition are Souvenir de Calvat père, Etienne Bonneford, President Vigers, Godfrey Masterpiece, very fine, Miss Mildred Ware, Miss Elsie Fulton, Sensation, Loveliness, and Mrs. J. J. Lewis.—S. A.

Consumption of wine in Britain.

—In their report to *The Times* upon the 1904 vintage, Messrs. W. and A. Gilbey state: "Notwithstanding that the interest of our nation in the subject of wine generally is probably greater to-day than at any previous period, and that any information on vintages or wine-growing is eagerly sought, it remains a fact, in contrast, that, be the cause what it may, the consumption of wine in the United Kingdom continues steadily to dwindle, regardless of our great increase of wealth, and we are consuming actually less wine than we did thirty years ago when the population was some 35 per cent. less. Not only France, but almost every wine-producing and non-wine-producing country of Europe have increased their consumption of wine from year to year in proportion to their population and increasing wealth, with the almost sole exception of the United Kingdom." Messrs. Gilbey attribute this fact chiefly to the heavy wine duties.

Tea Rose Corallina.—This is one of the brightest, freest, and best formed of the Tea Roses which bloom in autumn. It was raised by Messrs. W. Paul and Son, of Waltham Cross, and distributed by them two years ago; the buds are long-pointed and finely formed, and the flowers are produced in the greatest profusion, especially in autumn, as the fine bunches of this variety exhibited at the recent meetings of the Royal Horticultural Society's show. It is particularly striking in the collection of dwarf Roses growing in the Norfolk Nurseries, Dereham, by Mr. John Green, and the eye could rest upon many plants of it laden with blossom. It is appropriately named, for there is a peculiar shade of coral rose deepening to crimson in the flowers, which makes it so attractive. The Waltham Cross firm have distributed many valuable Roses, but as an autumn bloomer it would be difficult to name one which surpasses Corallina.—R. D.

Turriff Horticultural Society.

—At an adjourned general meeting of this society, held recently in the Town Hall Buildings, Turriff, Mr. Stewart, chairman, presiding, a report of the state of the funds was submitted by the treasurer, Mr. A. Burns, sen. This showed receipts amounting to £77 12s. 5d., with an expenditure of £45 16s. 10d. This gave a balance of £31 15s. 7d. with which to pay the prize money; but as this sum was only about the half of what was anticipated, the members agreed to take only half of their prize money. A proposal was made by the Rev. E. S. Gunson to alter the date of the show; but, after considerable discussion, this was remitted to a committee to consider it further and to report to a general meeting to be held in the spring. The financial results of the year are disappointing; but it is hoped that the falling off in the income is only a temporary one.

Lagerstrœmia indica at Abbotsbury.

—It may interest you to know that we have at Abbotsbury a specimen of the above about to flower outdoors. It is unusual for it to flower outdoors, but I believe it flowered here about four or five years ago. The specimen we have here is 16 feet to 18 feet high, and on a south wall. When it was originally planted it was evidently intended as a climber, but it has grown above the wall several feet, and is now flowering almost at the extreme end of the growths. It is partly sheltered from the southerly gales by Eucalyptus globulus, which is 40 feet to 50 feet high, and Evergreen Oaks, which may account for it. I might say it is also partly sheltered by the rather rare conifer Fitzroya patagonica. When the spikes are developed I hope to send one to you for your table, and if particularly good I intend having it photographed.—H. KEMFSTALL, *Dorchester*.



CHINA ROSES AND IVY IN NOVEMBER.

this acts as an astringent to the leafage and cleans it of the honey-dew and excreta formed by the aphides. For black fly on Cherry, and for all those that produce a copious flow of honey-dew, it is a most useful ingredient. The Quassia chips are boiled and the extract added to the soft soap wash; 6lb. to 8lb. of chips are required to every 100 gallons of wash. Paraffin emulsion, an excellent spray against aphides, is necessary for some kinds, as woolly aphid, which may also be attacked in winter by caustic alkali wash. For those which attack the root it is best to use bisulphide of carbon injected into the soil, a quarter of an ounce to every 4 square yards. Care must be taken with this substance, which is both poisonous and inflammable. The vapour of bisulphide of carbon liquid,

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HOME-GROWN FRUIT.

IT is safe to predict, that notwithstanding the unusually good crop of fruit announced from all parts of the country this year, fruit from the colonies and abroad will be just as much in demand as ever after Christmas. And this is chiefly due to a lack of proper means and a want of knowledge among home growers as to the best methods of storing. The Board of Agriculture and Fisheries has published much useful information upon these subjects by means of pamphlets, but they do not seem to have achieved the results they deserve. If all the good fruit that is produced in British orchards, gardens, and fruit farms were sent to market in a suitable condition for eating, and attractively exhibited, the home grower would find that his land would yield a much better profit than now is the case. There is no question as to the superior flavour of our own produce over that received from abroad. An instance of this was furnished by the exhibit of Apples from the Agent-General for British Columbia at a recent meeting of the Royal Horticultural Society. Although the society awarded its gold medal to the collection, this could not have been for good flavour, for they were not to be compared in this respect with hundreds of home-grown fruits in the hall. Considering the distance they had travelled, 3,000 miles by rail and 3,000 miles by sea, their appearance bore testimony to the skilful gathering and packing they had received, and probably they would have fetched fairly good prices in the market.

The fact that home-grown Apples hold the market until Christmas speaks well for their quality, and there is no doubt that if we were able to offer as good Apples after Christmas as we do before, we should have less reason to complain of the large supplies imported. We have an enormous advantage over the foreign grower in that we can market our Apples and Pears before their flavour is impaired, and if the public cannot yet distinguish between a good home-grown Apple and one that has lost all its flavour and nearly all its value as a fruit, they would soon do so if opportunities were offered. But at present home-grown fruit is comparatively rarely seen on the market early in the year. We are learning, if slowly, how to produce the best fruit, and the value of planting the best varieties. But until we have also learnt how to store fruit until a favourable opportunity offers for its disposal, so long

shall we have an abundance, sometimes a glut, of home-grown produce before Christmas and practically none afterwards, thus creating a demand for supplies from abroad.

In the Agricultural Returns for last year more than 7,000,000 cwt. of fruit were imported, and of these 4,500,000 cwt. were Apples. The total cost of imported fruits was £6,468,800, that of Apples alone being £2,781,643. These figures serve to show what a field is open to the British fruit-grower. With the great advantage he has in being on the spot, he ought, if skilled and up-to-date methods were employed, to be able easily to prove superior to competitors on the other side of the world. The close of an exceptionally good fruit season is a fitting time to remind growers of the need for adopting the best methods of culture and storage, and of putting to practical use the results of scientific experiments, so as to be able to take full advantage of the opportunities at their fingers' ends.

IMPORTED v. ENGLISH-GROWN APPLES AND PEARS.

ENGLISH APPLES ARE THE BEST.

THE interesting exhibit of Apples and Pears grown in British Columbia and exhibited at the Royal Horticultural Society's hall on the 18th inst. by the Agent-General for that colony, attracted much attention from growers and visitors by their large size and brilliant colour. The collection served to show conclusively the great possibilities of the soil and climate of that part of the world for producing large and well-coloured fruits. It speaks well also not only for the skill with which they were packed, enabling them to be delivered in London in apparently such excellent condition after travelling about 6,000 miles by sea and rail, but also for the courage and public spirit exhibited by the growers and agents of the colony in venturing so far to place them in competition on the market of a country which boasts of being the best Apple-producing country in the world. Comparisons, I know, are often odious, but when a fine exhibit of imported hardy fruit such as this was shown in England, and at a time so little removed (only a fortnight) from the great show of British-grown fruit held in the same hall, the occasion presents an opportunity for comparison as regards the quality of the home and imported article, which it would, I think, be regrettable to let pass by without comment.

The chief varieties comprising the imported collection were standard sorts well known in England, such as Ribston Pippin, Wealthy, Golden Reinette, Warner's King, Gravenstein,

King of Tompkin's County, Northern Spy, Blenheim Orange, and Emperor. An Apple little, if at all, known in England was a variety named Wolfe River, a fruit of immense size, and of a deep vermilion colour. A large dish received a cultural commendation (in addition to the society's gold medal awarded to the whole collection).

Judged from a popular point of view as to colour and size, the public verdict, no doubt, would be in favour of these fruits as against any out of door English fruit exhibited at the show mentioned; but no judgment as regards fruit can be less reliable than that of the ordinary public, carried away as it always is by that which is imposing in size and brilliant to look upon and pleasing to the eye. It is a truism amongst growers that size and colour are no indication of quality or richness of flavour; indeed, it is often a proof of the reverse, even in imported Apples, as the best flavoured varieties imported are undoubtedly Newtown Pippin and New York Pippin, both distinctly pale varieties, with little or no colour. It seems a fortunate coincidence that this national show of hardy fruits was held by the Royal Horticultural Society a fortnight before these fruits were seen, so that comparison as regards their value and quality with English-grown fruit was made possible for members of the fruit committee, who had the privilege of adjudicating on both occasions. A magnificent collection of Kentish-grown Apples and Pears was exhibited by Mr. G. Woodward at the same show, making the possibility of comparison more satisfactory and conclusive still. In rich colouring there is no doubt that British-grown fruit is wanting as compared with imported fruit, and possibly a little in size; but as regards the more solid and valuable qualities of weight, texture of flesh, and flavour, the British-grown fruit has proved decidedly and far away the best, and this is especially the case with those varieties of Apples and Pears which are in season from August to the end of January. I am speaking of dessert varieties. The quality of the imported fruit was thoroughly tested by the fruit committee by tasting. As regards the texture of its flesh and the quality of its flavour it proved most disappointing. The flesh of the Apples was sleepy and without a vestige of juice. As regards flavour (which probably at home would be all that could be desired) it had completely vanished, without exception. There was not one tasted at the table that one would care to have a second bite at. The few Pears tasted were rather better than the Apples. The best samples were Beurré Diel and Beurré d'Anjou, but the collection no doubt was a failure, judged by the standard of a good fruit, namely, quality, texture of flesh, and rich flavour.

The conclusion drawn regarding the relative merits of home-grown and imported fruit in the case under notice is that home-grown Apples and Pears grown by experts in their

cultivation on suitable land in England can hold their own against such fruit from any other country. This should go far to inspire our landowners and cultivators with confidence to embark still further in this important industry.

OWEN THOMAS.

PLANTING FOR WINTER EFFECT.

AN instructive paper was read by the Hon. Vicary Gibbs on this important subject before the Royal Horticultural Society on Tuesday last. We can do no more now than refer to a few of the leading features.

One point was strongly insisted upon, and that the close pruning of certain trees and shrubs to get the full colouring of leaf and stem, and Mr. Gibbs pleaded for a fuller recognition of the autumn beauty of many species. The common Snowberry (*Symphoricarpos*) was mentioned as a shrub improved by hard pruning in spring, the result of this being a greater profusion of flowers and fruit, and other shrubs named as benefiting by this treatment were *Spiræa Douglasi* and *Cornus sanguinea*. Among the shrubs named for planting for autumn effect were *Pyrus arbutifolia*, the Spindle tree (*Euonymus europæus*), *Rhus Typhina*, *Rosa rubifolia*, *R. rugosa*, *Leycesteria formosa*, *Kerria japonica variegata*, and *Fuchsia Riccartoni*, which is a shrub generally considered tender, but though the stems suffered, Mr. Gibbs had never known the roots killed, even in the clay soil at Elstree. *Bambusa Metake* produces suckers very freely at Aldenham, and a large group died last year through flowering. Every tiny shoot flowered, and no growths came from the roots. The Sea Buckthorn (*Hippophæ rhamnoides*) was mentioned as a shrub for the inland garden, although it is a native of the sea coast; the fruit is not touched by birds. Of late-flowering shrubs mention was made of *Olearia Haastii*, *Spartium junceum*, *Desmodium penduliflorum*, *Colletia spinosa*, *Ceanothus americana*, and *Caryopteris Mastacanthus*. Very beautiful as single specimens for their autumn leaf or stem colouring are *Taxodium distichum*, *Liquidambar styraciflua*, the Maples, especially the Sugar Maple (*Acer saccharinum*), *Disanthus cercidifolium*, *Enkianthus japonicus*, the variegated Blackberry, *Amelanchiers*, and Anthony Waterer's variety of the American Oak (*Quercus coccinea*). Mr. Gibbs also referred to the beauty of certain trees for their autumn tint. At the moment of going to press we cannot refer further to the interesting paper, but we hope to reproduce it when it appears in the Society's Journal. A remarkable collection of shoots from Aldenham was displayed in the hall.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 5.—Batley and District Chrysanthemum Show; Loughborough Chrysanthemum Show; Penarth Chrysanthemum Show; North Lonsdale Chrysanthemum Show.

November 8.—Ipswich and East of England Horticultural Society's Show at Ipswich (two days); Dulwich Chrysanthemum Show (two days); Sevenoaks Chrysanthemum Show (two days); Dulwich Chrysanthemum Show (two days).

November 9.—Buxton Chrysanthemum Show; Southend Chrysanthemum Show (two days); Stoke Newington Chrysanthemum Show (two days).

November 16.—Liverpool Horticultural Association Chrysanthemum and Fruit Show (two days).

"In Cyderland."—Those who were present at the private performance of this pretty musical play at the Cripplegate Theatre, Golden Lane, London, some months ago, will welcome a repetition of it in aid of the Gardeners' Royal Benevolent Institution. The play is called "In Cyderland," and has been thoroughly revised. The performance will take place in the same theatre on Thursday, November 24, beginning at 8.15, and tickets may be obtained from the hon. secretary (Mr. F. A. Washington) of the "Hurst and Son" Musical Society, members of which form the orchestra, or from the secretary of the institution, Mr. G. J. Ingram. An early application for seats is necessary. The libretto is written by Mr. R. Carey Tucker, and the music composed by Mr. Edward Sherwood, son of Mr. N. N. Sherwood, the head of the famous firm of "Hurst and Son." It is pleasant to see that the great example of the father is followed by the son. It will be remembered that only recently Mr. N. N. Sherwood gave £1,000 to gardening charities, to be divided between the Gardeners' Royal Benevolent Institution and the Gardeners' Orphan Fund. Mr. E. Sherwood is showing the same sympathy and interest in distressed gardeners and their widows. The performance could not be given in a better cause.

Vitis Thunbergii.—This vine is undoubtedly the most ornamental and brilliant of its race. Here it is far superior in every way to the *Coignetia*, so much admired of late years. It is even more vigorous, and has larger leaves, which attain a length of 1 foot and of proportionate breadth. I put in a small plant in the spring of 1903, pruned it hard back last spring, and it has made growths 14 feet long. This is a great advantage where walls, poles, or pergolas are required to be covered quickly; then to be rewarded in autumn with foliage of brilliant scarlet and crimson hues. It is a most desirable plant for autumn tints. It will, I feel sure, find favour with all lovers of climbing plants when better known.—G. ELLWOOD, *Swanmore Park, Bishops Waltham.*

The Langley Bullace.—Both Mr. G. Wythes and I have strongly advised Messrs. J. Veitch and Sons to give this really fine late autumn cooking Plum a much better name. To describe it as a Bullace is absurd. The fruits are as large as those of *Rivers' Prolific Plum*, are of rounded form, deep purple in colour, very fleshy, and of pleasant flavour. It is really a Plum, as its parentage, *Farleigh Damson* and *Black Orleans Plum*, indicates. When shown before the fruit committee two years ago the fruits were not fully developed. This year the seedling tree is more matured, and the fruits have been very much larger. It was unfortunate the Press representatives did not see the remarkable clusters, fifteen to twenty fruits on a bunch, shown on the 18th ult., before they had come before the committee. Because of its remarkably fine appearance a first-class certificate was unanimously awarded to the Plum.—A. D.

The Grappenhall Lavender.—Lavender is deservedly a favourite plant, and those who are unable to grow it in their gardens are frequently heard to lament its absence. I should like to mention the fine variety sent out a year or two ago by Messrs. Clibran, of Altricham, under the name of Grappenhall Lavender. It was claimed for it that it was superior to the common Lavender, and this year's experience of it confirms the claim made for it by the vendors. My plants did not bloom last year, probably on account of their removal, but this season they have flowered for a long time, and their large spikes of flowers are superior to those of the common form. Nor is this gained at the expense of fragrance. It has broad foliage also, and is altogether a plant worthy of being cultivated by all who care for these fragrant herbs. Like the other Lavenders, it prefers a dryish soil.—S. ARNOTT, *Carsethorn, by Dumfries, Scotland.*

Irish railways and farm produce.—Many of your readers are doubtless interested in the announcement made by the Great Northern Railway, England, offering special facilities for introducing sellers of farm produce to consumers. In this matter one Irish railway (Great Northern) have been the pioneers in Great Britain. As far back as 1896 this company

inaugurated a system of special rates for conveying farm and gardening produce, and have even gone to the trouble of providing special packing hampers at a nominal cost. Names and addresses of sellers and buyers are kept on record and periodically revised. This information is supplied free to *bona fide* enquirers. The following figures will give an idea of advantageous rates of conveyance. By passenger train small consignments of eggs, butter, cheese, flowers, fruit, vegetables, meat, &c., from any station on the Great Northern Railway to Belfast, Dublin, Derry, Lisburn, Bundoran, and Warrenpoint, 26lb. to 30lb. up to 100 miles 6d., 56lb. to 60lb. up to 100 miles 1s., and so on embracing weights from 11lb. upwards. This rate includes free delivery inside company's free delivery boundary. Last year the company carried 23,448 boxes under this regulation. Special provision has also been made for carrying milk. Sixteen gallons for 100 miles at 1s. 4d. or 1d. a gallon, the carriage of returned empty can included. Last year they carried 43,390 cans. This company have also specially constructed fruit vans. Apples and Pears from Annaghmore, County Armagh, to Dublin are conveyed at 15s. a ton, to Belfast at 8s. 6d. a ton.

A note from Ockley.—An old Bay tree, growing in a sunny corner of my garden, is now wreathed with the white blossoms of *Solanum jasminoides*. Long sprays of this lovely climber hang from the top branches of the old tree some 20 feet high, and are especially beautiful at sunset, the dark Bay leaves forming such a good background to the *Solanum*. A satisfactory feature in the garden this summer has been a border of mixed *Scabious*, which has been in blossom since the beginning of July, and is still full of flowers and buds. My *Roses* are doing well this autumn, the two which continue to flower best being *Mme. Alfred Carrière* and *Corallina*. The *Aponogeton*, after flowering well in a pond during July and August, has had a month's rest, and is now in flower again. A Cape Silver bush (*Leucodendron argenteum*), which I planted from a seed five years ago, is now nearly 7 feet high, and has many side branches covered with silvery downy leaves. I should be glad if someone would kindly tell me whether I may expect it to flower in my cool greenhouse and what sort of flower the Silver bush bears.—R. LYELL, *Ruckmans, Ockley.*

Eupatorium weinmannianum.—This *Eupatorium* is generally treated as a greenhouse plant over the greater part of the United Kingdom, but in the south-west is thoroughly at home in the open air, in that district forming huge bushes 10 feet in height and as much through, and flowering profusely from October onwards, blooming freely until Christmas unless a severe frost, which is rare in that district before the new year, should injure its blossoms. Its bloom-corymbs, composed of numberless small white flowers, are flat about 4 inches in diameter, and are borne in such profusion that the bush appears entirely covered with flower. The blossoms have a pleasing fragrance, and are followed by fluffy seed-vessels which are not unattractive. After the flowers of *Escallonia montevidensis* or *floribunda* are withered such butterflies as are about resort to the blossoms of this *Eupatorium*. If allowed to grow naturally it forms a dense bush, every shoot of which is terminated by a flower-cluster. It has often been confounded with *E. odoratum* or *odoratissimum*.—S. W. F.

An experiment in Apple growing. An interesting experiment in grafting has been the source of much interest in the neighbourhood of Beaulieu, N.B. About three years ago Mr. James MacIntosh, carpenter, Beaulieu, who had an arch composed of two Mountain Ashes over one of his garden paths, grafted a scion from an Apple upon one of these. Last year the appearance of the graft showed that it had been successful, and this season Mr. MacIntosh was rewarded by seeing a crop of nine Apples of large size and of unusually fine colour. A curious feature is that the Apples have a flavour slightly resembling that of the berry of the Mountain Ash. A number of people visited Mr. MacIntosh's garden to see his Apples grown in this way, and depending from an arch composed of Mountain Ashes.

Cupressus lawsoniana erecta Allumil.—Among glaucous-tinted conifers few are more beautiful than this variety of Lawson's Cypress. Its habit of growth is close and columnar, and is vigorous and free. A selection of this distinct variety of Lawson's Cypress, planted wide enough apart for free development, would be an exceedingly effective feature on the lawn.—E. HOBDAV.

Primula stellata.—This will be useful to the floral decorator, as there is a demand for light flowers of loose habit for vases, especially for dinner-table decoration. Though just as easily grown as the other forms of the Chinese Primula, this plant has a taller growth, and the flowering stems are longer. For cutting purposes this adds to their value. It is not likely to make a market plant, for the man in the market does not deviate much from old standards; but there is a time coming, I think, when a demand will arise for something fresh, and the stellate Primulas, Cinerarias, and other plants of similar habit will be wanted.—E. HOBDAV.

Cineraria stellata.—Though its habit of growth does not exactly meet the views of the man in the market just yet, it is a valuable plant for the conservatory, and the flowers, by reason of their lightness and length and stiffness of the stalks have some value for cutting, and one plant, when well grown, produces sprays for cutting for a long time in winter and early spring. Seeds are abundantly produced and grow freely, and the seedlings, in all stages of growth, possess more vigour than the old-fashioned Cinerarias. Last spring some of our surplus plants were turned out on the north side of a wall, where they continued to flower and scattered their seeds, and every seed grew. I have had the same thing carried out years ago with Cinerarias, and have come to the conclusion that sowing such things in heat, except for very early flowering, only weakens the progeny. When shifting on into 8-inch or 9-inch pots very large plants are produced that will be covered with flowers; there is now much variety in colour, and, by selecting the best plants for seed purposes, we may reasonably expect improvement.—E. HOBDAV.

Discovery of fruit-fly parasite.—Mr. A. Sanderson, Chislehurst, sent an interesting account to a recent meeting of the Scientific Committee of the Royal Horticultural Society of Mr. G. Cowpere's discovery in Brazil of the parasite of the fruit-fly, well known as a devastator of orchards in South Africa, Jamaica, Bermudas, Italy, Spain, and Southern France, as well as Malta. After two years travel and search with no success, he finally discovered it in Sao Paolo, and succeeded in conveying it alive, by rendering it torpid by the refrigerator, to Australia. A difficulty arose in the seasons of Brazil and Australia not coinciding, so that Mr. Cowpere is feeding them artificially till the fruit season comes round. He found several other parasites, as of the black scale, which has revolutionised the treatment of the pest in California, where its success has convinced even the most sceptical. Mr. Cowpere secured a second parasite of the black scale in Brazil. He discovered also the codlin moth parasite in Europe.

Leonotis Leonurus.—Judging by the remarks overheard at the last meeting of the Royal Horticultural Society, when some fine specimens of this bright coloured Labiate were shown by Messrs. Veitch, it would appear to be little known. It is a native of Cape Colony, and though the actual date of its introduction seems doubtful, this Leonotis was cultivated by Philip Miller in the Chelsea Botanic Garden as long ago as 1712. After a time, however, it would appear to have been lost, and for its reintroduction into this country we are, I believe, indebted to Mr. Lynch, who found it in the Ghent Botanic Garden about the year 1880, and secured it for the garden at Cambridge. Not long after the date just mentioned I saw it in good condition with Mr. Cannell at Swanley; in fact, it was my first introduction to the plant in question. Though I have often seen it since then at Kew it has never been much grown, and for its present revival we must thank Messrs. Veitch, who have of late years done so much towards lifting many good plants out of obscurity—Jacobinia

chrysothepana as an example. This Leonotis is of rather tall growth, the upright, growing shoots being clothed with narrowish leaves of a soft, hairy texture, and about 3 inches long. The flowers, which are borne in whorls on the upper parts of the shoots, but not quite to the top, resemble both in shape and arrangement the Dead Nettle of our waysides, but their colour is a bright orange-scarlet, and a considerable number of flowers are borne in each whorl. They are clothed on the outside with short hairs. It is readily propagated from cuttings of the young growing shoots put in during the spring months. The plants should be placed out of doors in a sunny spot throughout the summer, and taken into the greenhouse when the early autumn nights get cool. If the atmosphere is too dry red spider is sometimes apt to attack the foliage, but its worst enemy within the London district is a dense, sulphur-laden fog, which plays havoc with the tender leaves. In brighter and warmer climes than ours it is a gorgeous and popular plant.—T.

Institution of Heating and Ventilating Engineers.—At the meeting of the Institution of Heating and Ventilating Engineers



CHINA ROSES IN NOVEMBER.

(From a photograph taken in Messrs. Marshall's Barnham Nurseries, Sussex. See page 316.)

(Incorporated), held at the Holborn Restaurant, London, on the 18th ult., Mr. George Crispin (of the firm of James Crispin and Sons, F.R.H.S., heating engineers, &c., Nelson Street, Bristol) was unanimously elected as president for the forthcoming year. The summer meeting of the institution will therefore be held at Bristol in July, at the invitation of the president; and it is expected that the major portion of the members, numbering over 220, will then be present. The Institution of Heating and Ventilating Engineers is composed of the leading engineers in the trade throughout the United Kingdom, and Mr. George Crispin is to be congratulated on being selected to fulfil such an honourable position. The last summer meeting was held in Liverpool, and other summer meetings have been held in Nottingham, Birmingham, Dublin, Stourbridge, and London, at the invitation of the previous presidents who have been residents in these cities.

Dye from Echium.—Dr. Plowright sent specimens and the following communication to a recent meeting of the Scientific Committee of the Royal Horticultural Society: "For some years past I have been endeavouring to obtain specimens of *Lithospermum arvense*, in order to test its colouring properties; but I have neither been able myself to meet with specimens, nor have I been able to obtain any from my friends. At the suggestion of Mr. G. M. Holmes, I examined the roots of *Cynoglossum officinale* and *Echium vulgare*. In the first named I failed to detect any colour, but in the last named certain specimens contain alkanin in appreciable quantities. As is well known, *Echium vulgare* favours sandy soils, and it is often a brilliant ornament to our sandy lanes and barren places on heaths, &c. At times it strays into cultivated light land. I have examined specimens from five localities near King's Lynn, in three of which the *Echium* roots were devoid of red colour, excepting, perhaps, the barest trace. In the other two the colour was developed in more or less extended patches on the main and secondary roots. The age of the plant does not seem to have much effect upon its production; but, if anything, it is more abundant in the biennial plant. The two localities which produced it in greatest quantity had this in common. They were both almost pure sand, but received the washings from the main road made of imported granite. In fields, whether manured or not, and in ordinary sandy habitats, the roots were devoid of colour. So were specimens growing on roadsides where any flint was employed as road metal. The probable explanation is that the disintegration of the granite yields an appreciable amount of potash. The alkanin is confined to the cortex, as the accompanying figures show. It is deposited in the cell walls in a more or less patchy manner. By treatment with caustic potash the red cells are changed to bright blue. The coloured parts of the roots were treated with spirit of wine and oil of turpentine, both of which dissolved out the alkanin. Fragments of root were treated with white wax, with white hard paraffin, and with lard, to all of which the red colour was yielded. My friend, Rev. H. E. Bishop, of Middleton Vicarage, near King's Lynn, has been successful in growing the true *Anchusa* (*Alkanna*) tinctoria in his rockwork garden. He has kindly supplied a specimen, from the root of which the accompanying specimen of lard has been coloured pink, as well as a disc of white wax. The living plant and its flower are also sent. The red colour of the root is very marked. It contains much larger quantities of the colouring matter, of course, than does the *Echium*."

Petunia Lord Courtenay.—This charming rosy pink coloured variety, which is in danger of being grown under diverse names this season, is of a very attractive appearance indeed, whether grown in the open border or in pots. Pink and rose-coloured Petunias are not unknown to gardeners. There was the Shrubland Rose of many years ago, deep pink, and Marquise de la Ferte, soft rose with pure white throat; followed later by Countess of Ellesmere. And now comes Lord Courtenay. The small-flowered rose-coloured pink Petunias are usually of dwarf and compact growth, at the same time very free blooming, and thus well adapted for cultivation in pots, and in this form they make excellent subjects for conservatory decoration. I find them freer of bloom when grown in pots than in the open border; but unsuitability of position may have had something to do with their comparative failure in the latter. *Petunia Lord Courtenay* promises to be one of the most interesting novelties of the year, and I have no hesitation in prophesying that it will prove a very useful plant.—R. D.

Trachelium caeruleum (Blue Throatwort).—It is gratifying to find this fine old greenhouse perennial being announced as a good plant for table and house decoration. Forty or so years ago it was a popular plant in gardens, valued on account of its easy growth and its characteristic of blooming freely; and it was thought to be worthy of cultivation as a specimen for exhibition. During the summer it bears a profusion of broad clusters of pale lavender-blue

blossoms; there are also a white variety, and one or two others. In the warmer parts of the country it may be grown as a hardy plant on rockwork in sheltered spots, but it is for general purposes a greenhouse perennial subshrub. One excellent use to which it can be put is as a vase plant. In some parts of the country working men send to local flower shows well-grown and bloomed plants of the *Trachelium*. A sandy loam of good heart suits it for pot culture. It can be propagated by means of cuttings taken in spring and struck in a gentle heat, and it can also be raised from seeds.—R. D.

Biarum or Ischarum eximium.—

There are many singular plants among the Aroids, but there are also many among them of great beauty. Unfortunately, a number are possessed of odours far from agreeable, and some may well be said to have these so pronounced as to make them undesirable occupants of a garden. Some of them, however, are practically odourless, and it is only when they are in a room or glass house that they are unpleasant. Among the latter one would place the striking *Biarum* or *Ischarum eximium*, a species introduced from Western Cilicia in 1898, but only brought before the notice of growers within the last three or four years, since it was imported in some quantity through the medium of Mr. Siehe of Mersina, Turkey-in-Asia. It is a hardy plant, which is fortunate, as a specimen in a pot taken into the house soon found itself expelled in a somewhat unceremonious fashion. Yet it is of considerable beauty, and as a plant for the open garden it attracts much attention from those who appreciate singularity and beauty combined. It is at present in flower, and is very striking with its dark purple-brown spathe in the interior, quite velvet-like, and the conspicuous spadix of rather deeper hue. The outside of the spathe is pale green, spotted with brown, and the plant when in flower is about 6 inches high. The leaves, which are produced after the flowers, are of the familiar shape of many of the Aroids, and are of a pleasing green. But for its odour, *Biarum eximium* would be a peculiarly interesting, though not showy, house plant, but this defect is a sufficient bar to its use as such, and it ought to be relegated to the border or the rockery. It is being offered as *Ischarum eximium*, but I am following the authority of the "Index Kewensis" in calling it *Biarum eximium*, that great work referring the whole of the *Ischarum*s to the genus *Biarum*.—S. ARNOTT, *Carsehorn*.

Nerines in flower at Kew.—By the fourth Monday in October the flowers of some of the *Nerines* were past their best, but at Kew there was at that date a very interesting series still in bloom. The following sorts were particularly noticeable: *N. excellens*, carmine-pink, with a deeper coloured stripe down the centre of the crisped petals; *N. lucida*, large, light pink flowers, arranged in a very spreading umbel; *N. humilis cerulea*, a dwarf free-flowering sort, whose pink blossoms become suffused with a bluish or leaden hue; *N. humilis splendens*, like the last, the narrow petals are very much crisped, but in this variety they are of a rich carmine-red, a very effective



PEAR LE LECTIER. (Slightly reduced.)

tint; *N. sarniensis major*, far and away the most brilliant of all at that time represented, the flowers being of an intense scarlet-vermilion tint, and when lit up by a ray of sunshine they glitter as if bedewed with jewels; *N. sarniensis*, rosy scarlet; *N. curvifolia major*, syn. *N. Fothergilli major*, bright scarlet; *N. amabilis*, bright pink, the petals most crisped of any; and *N. Novelty*, a very distinct form, whose colour may perhaps best be defined as salmon pink, with a deeper stripe down the centre of each petal. While some of the many *Nerines* now met with are original species, there are numerous garden forms in cultivation, for in days long gone by Messrs. Henderson of Maida Vale and St. John's Wood raised and distributed several, and we now annually look for an exhibit from Mr. Elwes of his delightful seedlings at one of the Royal Horticultural meetings about the middle of October.—T.

THE NEWER APPLES AND PEARS.

APPLES.

RIVAL.

AT the recent Royal Horticultural Society's show of hardy fruits at Westminster this new Apple was much admired. The raiser, Mr. Charles Ross, must have felt proud to see his new seedling in such a prominent position; and not only the raiser but Messrs. Cheal also, who sent out this new fruit, had splendid examples. Just at the moment I am unable to note the parentage, but it is one of the seedlings Mr. Ross thought most highly of, as he considered it would take a foremost position for its good flavour. The fruits are very pretty, rather conical, and bright in colour, and the tree is a great cropper even when small. It will be valuable for gardens of limited size, as when grown on the Paradise stock it soon fruits.

CHARLES ROSS.

This fruit was also staged in excellent condition. It was so fine this year, as represented at the show, that at first anyone might well be pardoned if they mistook it for Peasgood's Nonsuch, and I think in time the society would do well to make the same rules here as regards size, as in the case of the Blenheim Orange fruits that must pass

through a 3 inch ring. No fault whatever could be found with the large fruits, but I feel sure that the smaller ones are more valuable for dessert. I am sure both the raiser and distributor will not think I am complaining of the quality of this fine fruit. Certainly not, but of its value for dessert when of the size named. As this variety will doubtless be much grown in a few seasons, it may be advisable to make two classes.

ALLINGTON PIPPIN.

Messrs. Bunyard have reason to be proud of such a splendid fruit as this. It appears to do well in all parts of the kingdom, though the fruits from the northern counties at the recent fruit show lacked the size and colour of

the southern ones. Everyone had a good word to give this variety as regards its cropping. It is now ten years old, and has had sufficient time to become known. It certainly does not fail to keep the position it obtained when it received a first-class certificate in 1894. The first and second prize dishes at the above exhibition came from Kent and Sussex respectively, and they were remarkable for their finish and colour, though it is only fair to add many others in the single dish class for this variety were well deserving an award. Few new Apples have proved more valuable in such a short time as Allington Pippin. In heavy soil the colour is splendid, and the trees grown on the Paradise stock are most prolific.

WERDER'S GOLDEN REINETTE.

This Apple was staged before the fruit committee of the Royal Horticultural Society on the 4th ult., and received an award of merit. At first one would think an Apple given an award on this occasion to be a new variety, but this is by no means the case. It is not, however, largely grown. This variety was well staged years ago at the great Apple conference held in the old gardens belonging to the society at Chiswick, and the late Mr. Barron was very fond of it. Strange to relate, it was just twenty-one years since this variety was noticed at the conference, and I do not remember seeing it since that date, but it should not be lost sight of. It is a fruit of excellent flavour, small, and has rather a large eye, the colour being pale yellow, with russet markings. At Chiswick this variety cropped well. The fruits were staged by Messrs. Veitch, and were grown in their Langley nursery. The flavour was first-rate. It is well that these small but highly-flavoured fruits should be thought of, and though of more value in private gardens, I fear of late years small fruits have less chance than the large, showy ones, but for dessert mere size should not count.

KING'S ACRE BOUNTIFUL.

A beautiful cooking Apple from the King's Acre Nurseries, Hereford, a county next to Kent in the production of good hardy fruit. The new Bountiful will certainly become a favourite for its size, shape, and colour. The quality is first-rate; it is an early fruit. The skin is yellow and the fruit large, and not unlike Pott's Seedling, but more conical, with a brisk, pleasant flavour; it is a heavy cropper, and excellent for cooking. It will be interesting to test its keeping qualities, as though given an award early in October I should think

the fruits will be even better as regards quality some weeks later. Owing to its firm flesh and brisk flavour, it should be a good late autumn fruit.

HECTOR MACDONALD.

This Apple is the result of that excellent fruit grower's labours—Mr. Charles Ross of Newbury. I am not aware of the parentage of this new fruit; it is a cooking variety, large, and remarkably handsome, somewhat resembling Peasgood's Nonsuch in shape, but with a firmer flesh. The flavour is brisk; the fruits are covered with red on the sunny side, and Mr. Ross says it is a splendid cropper, so that it will be a valuable introduction.

PEARS.

MARGUERITE MARILLAT.

This recently-introduced Pear made a splendid display at the great fruit show held recently in the new hall. The fruits from Sir Marcus Samuels' gardens, Maidstone, were very beautiful, also those from Woburn Park (gardener, Mr. Basile). I noticed the same good quality was conspicuous in several of the other collections. At first sight any one would think this variety a very fine Souveoir du Congrès, but of a brighter golden hue. There can be no question, however, as to its value, as for the past two seasons our cordon trees have borne large crops. This Pear has now been grown long enough to test its value, and of course the chief point would be its flavour. It does not keep long, but it is very sweet, juicy, and a most valuable early autumn Pear. The tree is of upright growth, compact, and will succeed well on a west wall. Some may object to its size; but grown as a bush or pyramid it will be a valuable addition to the early autumn fruits.

CONFERENCE.

Those who saw the splendid fruit trees in pots which formed the centre of Messrs. Rivers' group at the recent great hardy fruit show of the Royal Horticultural Society will have noticed trees of the above Pear, the plants being grand specimens and laden with fruit. Conference is not of such good quality as Doyenné du Comice, but this Pear is unequalled in this respect. Such sorts that fruit like the new Conference are worth noting, as there are so many of the older ones that do not equal the

last named, either in crop or quality. The fruits are very distinct, and when the trees are on the Quince stock the flavour is very good, the fruits being melting and juicy, with a rich flavour if they are not gathered too early from the trees. They are large, pyriform in shape, and few Pears have such a distinct character; the skin is a very dark green, but the greater portion is covered with russet. The tree is remarkably hardy and prolific; indeed, in the latter respect it has few equals, as it so rarely fails to crop, even in bad years. It is one of the best Pears for pot culture, or what may be termed orchard house treatment, its season being early November. This fruit was a few seasons ago given a first-class certificate by the Royal Horticultural Society.

ST. LUKE.

For this valuable introduction we are indebted to Messrs. Rivers of Sawbridgeworth, and it is worth a note for its quality. St. Luke is an October Pear, and though as regards its season we then have some of the best Pears to select from, I may safely say that we have none too many of first-rate quality, and there is ample room for the newcomer, owing to its rich mellow flavour and melting flesh. This variety fruits well under pot culture, but as this mode of culture is not general it should be quite as good in other forms, and it will certainly make a good wall or cordon Pear. The raisers staged splendid baskets, and these, even when so many other good fruits were staged, could not fail to be noticed owing to their perfect shape and finish. This year's were very beautiful, and should make St. Luke a favourite variety for future planting.

S. T. WRIGHT.

This new fruit was named after the superintendent of the Royal Horticultural Society's gardens, and though the fruits staged were first-rate, I am not fond of one of the parents, Beurré Bachelier, as though the last named rarely fails to crop and the fruits are large and handsome, the quality is decidedly second-rate. I admit the tree is vigorous, and does well where others fail, and the new seedling may only inherit the good qualities of the parent. It certainly showed little of the flavour or appearance of the latter, having a russet skin, the fruits being medium sized and a

rich golden colour, in this respect more like the other parent, Williams' Bon Chrétien, so that doubtless, though later than the last named, it will be a valuable October fruit, and it is stated to be a splendid cropper; in this respect both the parents are excellent. This new Pear was raised by Messrs. Veitch, who of late years have certainly given fruit-lovers some excellent new fruits.

LE LECTIER.

A very fine large Pear that is ripe in December and January. The tree is of good habit. Either on the Quince or the Pear stock this variety does well. It is an abundant cropper, and the flavour of the fruit is excellent. Raised by Messrs. Veitch. It has received the Royal Horticultural Society's first-class certificate.

HACON'S INCOMPARABLE.

This Pear is of very distinct appearance, being, as the illustration shows, covered with russet. It is a large, handsome, and agreeably flavoured fruit, ripe in November and December. It grows best on the Quince stock, either as a cordon or a trained tree. When grafted on the Pear stock it will not thrive in all districts.

CHARLES ERNEST.

This is a large and handsome fruit of a yellowish colour, crimsoned on the sunny side, and marked with russet dots. It is of excellent flavour, and may be regarded as a valuable late variety. It is in season from October to December. Either as a pyramid, espalier, or cordon on the Quince stock it bears well. Messrs. James Veitch and Sons, Limited, Chelsea, raised this Pear, which received an award of merit from the Royal Horticultural Society in December, 1900. G. WYTHES.

PROPAGATION OF BUSH FRUITS.

CONSIDERING what an easy matter it is to propagate bush fruits, such as Gooseberries and Currants, from cuttings, one is surprised to see the specimens which encumber the ground in many gardens. Some of these have grown out of all bounds for the want of timely use of the knife, and others have old age and debility plainly written on every branch and twig. Exactly how long a Gooseberry or Currant bush will remain fruitful and profitable is largely a matter of treatment; but market men who grow them on commercial lines know that the heaviest crops and the finest fruits are obtained from young and vigorous specimens, and consequently a certain amount of propagation is continually going on in market establishments in order to raise stock to take the place of old specimens when they show signs of debility. Old and partially worn-out Gooseberry bushes are subject to various evils. Branches are apt to die off when laden with fruit, and the bushes are apt to be rendered leafless by attacks from that little pest the Gooseberry mite, which always plays more havoc with an old specimen than it does with one possessed of the vigour and vitality of youth.

For these and other reasons it is obvious that old worn-out bushes are not profitable, and in every garden a little space may be set aside as a nursery bed for the raising of young stock. The formation of cuttings is a simple matter, and as soon as the leaves have fallen in the autumn strong shoots of the current season's growth may be taken from Gooseberries, Red, White, and Black Currants for the above purpose. In the case of the three former fruits it is a distinct advantage to raise bushes having a clear stem above the ground, in the first place because the ground can be worked and kept clean up to the stem; secondly, because a bush of this type is easier to manage in the way of pruning; and, thirdly, because it produces the finest fruit. In order to secure the desired clean-stemmed bushes of Gooseberries and Red and White Currants, the cuttings should be made from 12 inches to 15 inches long, and after cutting just



PEAR HACON'S INCOMPARABLE. (Slightly reduced.)

below a joint all the buds should be removed with the exception of about four at the top. The non-removal of the lower buds is responsible for the springing up of sucker growths from the base, which are always a nuisance, because unless they are removed entirely they continue to grow as fast as they are cut back. The cuttings may be inserted in rows about 6 inches apart and to a depth of about 4 inches, treading the soil firmly to keep them in the ground.

In the case of Black Currant cuttings there is no need to remove the lower buds, because here a bush with a clean stem above the ground is not desired. On the other hand, the strongest young shoots on Black Currants, which produce the finest fruit, are sent up from the base of the bush in the same way as the best growths are obtained from a hybrid perpetual Rose. Indeed, the whole principle of pruning a Black Currant consists in thinning out old and useless wood with the object of encouraging strong shoots from the base. Care should be taken to protect the buds on the inserted cuttings from birds in the spring, and if no harm comes to them, the breaking into growth signifies that rooting has taken place. The young growths formed from the buds left on the cutting should be allowed to grow unchecked the first season, and in the autumn, or twelve months from the time of insertion, the little bushes may be lifted and transplanted. The following spring the four young shoots on each should be shortened to about half their original length, which will cause them to break strongly lower down, and thus the foundation of a good specimen is laid.

With reference to Black Currants, the now well-known bud mite is causing such havoc among this fruit that the greatest care should be exercised to propagate from none but clean stocks, as it is doubtless through the neglect of this precaution that the evil has spread to the present alarming degree. Whether anything will be done in the future to check the spread of this evil is an open question, but propagation from nothing but perfectly clean stocks is certainly the best preventive at present. In the way of varieties we have no more useful sorts amongst Gooseberries than Keepsake, Whinham's Industry, and Crown Bob, though for fine flavour Early Sulphur and Green-gage might be added. Raby Castle is a fine Red Currant, though Comet is larger, and White Grape is among the best of the whites. The old Baldwin and Lee's Prolific are two good Black Currants, and I would also recommend Boskoop Giant, which certainly has some mite-resisting capacities.

G. H. H.

OUTDOOR PEACH CULTURE

PROTECTION WHILE IN BLOOM.

THE subject of the extension of fruit growing as an industry in England has been much advocated during late years, both in the Press and on public platforms, and undoubtedly from statistics furnished and other evidence this advocacy is having its reward, if slowly, in the increased acreage devoted throughout the country to fruit culture and in the quality of the fruit seen at exhibitions and in the market, the latter the produce of younger trees. But this increased activity in the culture of fruit is confined chiefly to Apples and Plums, and in a less degree to Pears. With regard to the Peach out of doors the case, I am sorry to say, is the reverse, as there are fewer grown now than used to be the case twenty or thirty years ago. Why is this? It is not too much to say that in its season no fruit is more enjoyed than a luscious Peach or Nectarine, especially when grown out of doors on a sunny wall.

It is difficult to give a reason for this decadence in Peach culture, as this tree succeeds so well on south walls in all the warmer

parts of Britain. In the public mind I think Peach culture is more or less looked upon as a luxury, a luxury only to be indulged in by the well-to-do. This is a great fallacy. It is as easy to grow as the Plum, provided the soil and climate are suitable and a south wall available. It is very seldom indeed that the Peach fails to produce a good crop, and it is therefore remunerative to grow. Recently I had the pleasure of visiting the gardens at Hatfield House.

Mr. Norman drew attention to a Peach wall that claimed my genuine admiration. The trees were perfect specimens of good culture. I have never seen better; every inch of the wall appeared to be covered with healthy bearing wood and clean foliage. Mr. Norman assured me that for the past ten years the trees had only once failed to produce good crops. This can be said of very few other fruits. Moreover, during the whole of that time the trees have received no protection while in bloom, not even the conventional herring-net. This is a point, in my opinion, that requires strongly emphasising.

It is a belief, almost a strong conviction, with many gardeners that to grow the Peach successfully it is essential that an expensive coping of wood, or glass with blinds and rollers, be fixed to the wall, entailing much cost and endless labour in rolling up and down night and morning afterwards. That this is unnecessary has been proved at Hatfield, as stated above, and I may say that my own experience, especially at Frogmore, goes entirely to support Mr. Norman's practice. There we had great length of wall devoted to Peach culture out of doors.

Three parts of the walls were furnished with portable glass copings, which, with the blinds suspended from them, were fixed in position every spring before the trees were in bloom. The other portions of the walls were left quite unprotected for the ten years they were under my charge, and during that time I could never detect that fuller or better crops resulted from the protected trees than from the unprotected. This fact, I think, cannot be too widely known, as it is generally believed among growers that these expensive adjuncts are necessary to the successful growth of the Peach out of doors. This belief in a great measure, in my opinion, is responsible for the decadence and want of interest taken in the Peach as a hardy fruit tree.

OWEN THOMAS.

METFORD'S LEMON.

(CITRUS MEDICA VAR. LEMONUM.)

IN the Mexican wing of the Temperate house at Kew this very remarkable variety of Lemon has fruited. The tree is about 12 feet high, and the fruits were 8 inches long and 6 inches wide, the leaves being 8 inches by 4 inches. I recorded the history of this Lemon in your contemporary, the *Gardeners' Chronicle*, as follows:—"In January, 1896, Miss Laura Metford Badcock of Fons George, Taunton, forwarded to Kew a large Lemon fruit which had been grown in the garden of Mrs. Tucker at Leigh Court, Angers Leigh, Wellington, Somerset. Miss Badcock wrote:—"The history



METFORD'S LEMON IN THE MEXICAN HOUSE AT KEW.

of the big Lemon is this: The original plant was grown from seed by my great aunt, Miss Metford, at Hook House, Taunton, in the very early years of this century, and was kept there till 1868, when the place was sold at my grandfather's death, and the plant given to a friend, who let it die. The present and only plant was grown from a cutting of that tree given by my grandfather, Dr. Metford, to Mrs. Tucker, and now owned by Miss Tucker, who sometimes gives us a Lemon from it. I will ask her to forward a few cuttings from the tree to you. My people were so proud of this tree that I should be glad

if you could name it Metford's Lemon. Shortly afterwards, Miss Tucker, when forwarding two cuttings from her tree, wrote:—"It had so many fruits in the past two years that it has not thrown much young wood. For want of space it had to be pruned."

This is undoubtedly a form of the true Lemon, *Citrus medica* var. *limonum*, but I have not been able to find any form exactly answering to it among the many described and figured in botanical works. The nearest is one figured in Dr. Bonavia's illustrated work on the Citrus family in India, under the name of "Kumaon" or "Gulgul" Lemon, which he calls the "Elephant" variety of the Lemon group. That, however, differs from Metford's Lemon in its smaller fruits (13½ inches in girth), the roughness and wartiness of the rind, the "bronzy reddish-brown" colour of the flowers, and the wingless leaf-stalks.

When recommending the better sorts of Oranges and Lemons for cultivation in India, Dr. Bonavia says:—"Lahore should give attention to the large sour and juicy Lemon known in the Punjab as 'Gulgul.'" In this connexion we may mention that Mr. George Monro of Covent Garden, to whom the fruit sent to Kew by Miss Badcock was forwarded for his opinion as to its usefulness commercially, considered it much too large to find a ready market. W. W.

THE ROSE GARDEN.

SEASONABLE NOTES.

BY the time these lines are in print the Rose nurserymen will be busy despatching their orders. And the question arises whether our beds and borders are ready for the reception of the plants. Every good grower is fully alive to the necessity of the most careful

PREPARATION OF THE BEDS AND BORDERS.

Few of us can alter our soil. The best must be made of what we have. True, it is possible with many individuals to set apart a portion of a meadow for a Rose garden. And how successful this plan has been many growers have now cause to rejoice. We hear a great deal about the rich loam, but how frequently we find the best Roses come from soils anything but good. Deep tillage is of the utmost importance to successful Rose culture. Let the soil be well trenched to a depth of 3 feet if possible. One of our most successful amateur exhibitors assures me he always trenches 3 feet deep. Do not stint the farmyard manure. How baneful is the practice of applying fresh manure to the soil. We impose a task upon the soil which should have been accomplished in the manure heap, so that I would urge the use of manure that has been well turned during the summer. In addition to this add bone-meal or ¼-inch bones to the soil as trenching proceeds.

New beds or borders should be raised fully 9 inches above the surrounding surface. If the soil is heavy an application of lime rubbish will be very helpful, and also if drainage is bad 5 inches or 6 inches of broken bricks placed in the bottom of beds, with turf, grassy side down, on top of them will be very useful, especially in the case of beds intended for the true Tea Roses.

WHEN TO PLANT.

Undoubtedly October and November are the best months for this operation, but rather than plant when land is wet the Roses had better be heeled in until the land is in a fit state. The soil should be neither too dry nor too wet. When the soil is very wet and it is trodden firmly about the roots it simply settles into a hard brick-like substance in which nothing can thrive. But if in a nice friable state, something like soil used for potting plants, then we may look for good results from our planting. would strongly urge buyers to procure their plants

early, and if they cannot plant when the package arrives the plants may be securely heeled in under a north wall or hedge, and they can so remain until spring if necessary. In very cold and wet districts spring planting is by far the best, but as it is necessary to secure strong plants they should be obtained in autumn. The question arises what to plant. Without a doubt Hybrid Teas will be in the majority, but a careful selection of the best Hybrid Perpetuals should also be planted, as they supply the brilliant colours, the delicious fragrance, and the glorious form we admire so much. Are standards as good as bushes? I am often asked, and I reply that some sorts do equally as well either way. It is the free, bold type of Caroline Testout, Frau Karl Druschki, &c., that makes the best heads on standards, not forgetting, of course, several of the Teas. Many individuals think it is difficult to grow those lovely Roses Cleopatra and Comtesse de Nadaillac, but try them on vigorous standards or half standards and see. This latter Rose, instead of being the most difficult, is one of the easiest, providing a well-drained soil and warm aspect be provided for it. The

DECORATIVE ROSES

are fast usurping the position of the bedding plants formerly so popular, and how can we miss the opportunity to extend their culture? Just now (October 20) beds of Grüss an Teplitz, Corallina, G. Nabonnand, Eochantress, Caroline Testout, &c., are more beautiful than anything else in the garden, and have been for some time. But perhaps the Rose that pleases most is the one that gives abundantly a flower of beautiful colouring and form, such as is exemplified in Mme. Abel Chatenay and Antoine Rivoire. It will be a long time before such Roses as these are superseded. I would make a small plea for old-fashioned Roses, for after all it is in the sweet June time that Roses seem so dear to us, and these old Roses blossom then in profusion. Pillar Roses should abound in every suitable position. I have seen them used with good effect, interspersed over large beds of bushes. Such sorts as Frau Karl Druschki, Gloire des Rosomanes, Anna Alexeiff, Gloire Lyonnaise, &c., are grand for this purpose.

Rambler Roses, creeping Roses, fountain Roses, and weeping Roses must all be found in the large rosery. How far they should appear in the small Rose garden must be a matter of individual taste. Roses of short season, however splendid their display, can never maintain their popularity against those of more perpetual flowering qualities. There are many who would rather plant Grüss an Teplitz or climbing Cramoisi Supérieur than the showy Crimson Rambler, because in the former instances there is a brilliant effect when most needed in autumn.

TRIAL BORDERS

of untried varieties I would strongly advise, especially to those who plant to a colour scheme. So many Roses are disappointing when regarded from their decorative effect in the garden. By planting one or more of quite a number of sorts far better results would be obtainable from the experience such borders would provide.

RENOVATING OLD ROSE GARDENS.

Making beds and borders can be safely taken in hand now. I am convinced we do not transplant our Roses frequently enough. Simply lifting them, turning over their roots, and returning the plants to new beds, or the same renovated, would put new life into many, and the summer display would be far more satisfactory. A shovelful or two of good compost placed about the roots will work wonders in creating a vigorous growth.

OLD STANDARDS, PILLAR, AND RAMBLER ROSES that are too large to move can be very much improved by removing the worn-out soil around and partly beneath the roots, taking care to disturb the latter as little as possible. Replace with new soil, or part new and part of the old with well-decomposed manure incorporated. The result may not be apparent until the latter part of next year, but from this time onwards the plants will take on a new lease of life, that is, of course, if they are not too far gone before the work is taken in hand.

FORCING ROSES

should now be overhauled and placed under cover in pits or a cold house. Some of the plants may be pruned and started at once, but the main supply will be pruned about Christmas. The time to allow from the pruning to the blossoming would be about twelve weeks. There is scarcely a Rose in cultivation but that has a charm about it when seen growing under glass in the dull months of the year, but as a rule the varieties that possess quality of blossom are preferred for forcing, and also those that bear their blossoms erect. Drainage is so important an item in the cultivation of pot Roses that no excuse must be found to prevent a thorough overhauling of the plants. Some plants may also require top-dressing. P.

CHRYSANTHEMUMS.

THE COMING SEASON.

JUDGING from what I have seen, and the reports that reach me from many sources, the Chrysanthemum season of 1904 should prove to be one of the best on record. The growing season was all one could wish for, and where the plants have been properly treated there is every indication of high class flowers, the wood and foliage being well matured, and, fortunately, the dreaded rust is much less in evidence than it has been for some years. The Japanese section has been very largely added to and much improved from many sources. Since the English raisers have taken the matter in hand they have done much to uphold the high standard of this beautiful and varied class. The great variety of colours and the many diverse forms will, I am convinced, tend to make these popular and interesting for many years to come. Whites, yellows, and lilacs undoubtedly prevail, and, strange to relate, up to the present time no one has been able to succeed in giving us a good crimson to take the place of that once famous variety named after that noted grower E. Molyneux, a variety which has probably held its own longer than any other.

IMPROVED WAYS OF EXHIBITING.

It is gratifying to note that the old and foolish method of exhibiting these in cups and tubes on boards is fast dying out, and the system of staging the flowers on long stems in vases is now becoming popular at most exhibitions. Credit must be given to our Scotch friends for taking this forward step, and even at the present day nowhere that I know is the same encouragement given as at the great Edinburgh show, and I venture to predict that before long this system will become quite universal in setting up blooms of all sections. Well grown incurved flowers look equally well, and, indeed, the same may be said of the charming Pompons, singles, and, in fact, the whole of the decorative varieties.

By the time these lines are in print the friendly rivalry will have commenced, and those who have spent many months in paying close attention, and watching almost every petal as it unfolds, will not be sorry that the anxious moments are passed, and I trust those who have not met with that share of success which they had hoped for will not be disappointed or disheartened, but will return to the field of labour with an incentive to do better in the future, especially those who are young in the profession and have made up their minds to make a name for themselves. Success can only be achieved by determination, and learning to take defeat in a manly way. The chief points in relation to

EXHIBITION CHRYSANTHEMUM FLOWERS,

which comprise Japanese, incurved, large Anemones, and reflexed, are size, colour, and freshness; of course, evenness throughout, either on boards or in vases, is also most essential, and when three or five blooms, as the case may be, are required, these should be as much alike as it is possible to get them. Extreme dressing should not be indulged in, as, in my opinion, the flowers

should be shown as naturally as possible, thus revealing their general character. At the same time, any decayed or bad petals should be carefully removed, and hard centres, which may interfere with the proper development of the flowers, should be taken out when the bloom is about half expanded. Any which are not likely to keep fresh on the plant for any given date may safely be cut, placed in water, and kept in a dry, dark room, where they will remain in good condition, if the water is changed frequently, for a week or ten days. Shade the general batch of plants during bright sunshine, and especially after dark, dull, foggy weather. Ventilate freely when the weather is clear, but great care should be exercised when wet and dull. Extreme fire-heat should certainly be avoided, but the pipes should be warmed just sufficient to maintain a dry, buoyant atmosphere. Do not hesitate to fumigate the plants with XL All when any sign of green fly is in evidence, as good flowers can never be expected when they become infested with this.

SPECIMEN PLANTS

should now be finally tied, and so arrange the plants that the whole of the flowers may draw to the front. Liberal supplies of manure water should be given these, as it is at this period that the greatest strain is felt. Late plants, which are still outside, may remain there for another fortnight, providing they are well protected during frosty weather. Thoroughly stake and tie the plants, and give manure every other watering; dust with flowers of sulphur, and moderately thin out the buds sufficiently to allow each one to develop properly. These will be found to be extremely useful during midwinter when other flowers are none too plentiful.

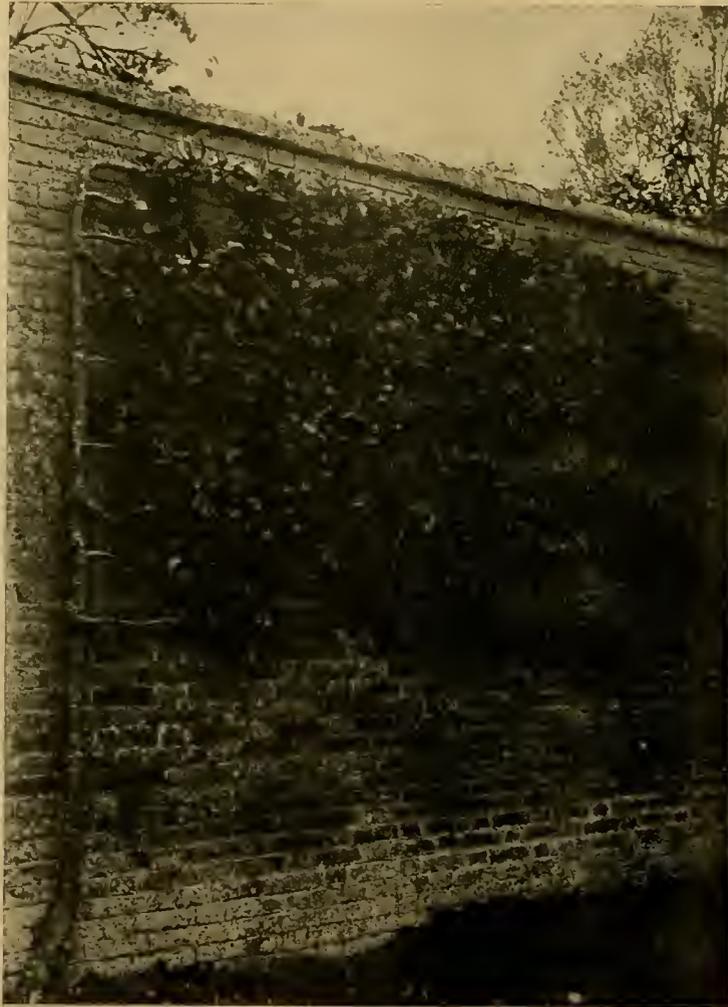
E. BECKETT.

Aldenham House Gardens, Elstree.

GATHERING AND RIPENING LATE PEARS.

GOOD Pears are often spoiled by being gathered too soon and neglecting to help them with a little heat to bring up their flavour later on when their season for use draws near. This more especially refers to late Pears, which are supposed to be in season from Christmas onwards. During October and November there are generally in most gardens where Pears are grown more than can be consumed, but when the Christmas festivities are over there is not infrequently a scarcity of really good fruit. Late Pears should be left on the trees as late as they are capable of holding. Early gathering means early ripening, if the fruit do not shrivel; in the latter case of course they are useless. Easter Beurré especially must be left on the tree as long as possible, as it has a habit of ripening before its proper season, though soil and situation have something to do with this. All late Pears should be kept in a dry, cool, dark room till about a fortnight before they are required for use, and should then be placed in a temperature of 60° to ripen as required. If not the best Christmas Pear Glou Morceau is certainly one of the best, and it rarely fails to bear on a wall. This should make a profitable sort to plant against the gable end of a lofty building in a good aspect, with the roots kept out of the cold subsoil, especially where this is clay, though I have found a subsoil of sand

as injurious to Pear trees, when the roots penetrate it, as clay. An excellent old winter Pear will be found in Winter Nelis, valuable not only for its excellent flavour, but also for its long season. If kept in the dark and taken into a temperature of 60° a few at a time as required its season will last for pretty well three months. Knight's Monarch is another old Pear that is excellent in point of flavour, and will keep in condition for several months. This is not much grown now, at least I have not often met with it of late years, though I have pleasant reminiscences of an old tree I knew many years ago in Worcestershire. It never carries a very heavy crop, *i.e.*, it never injures itself by overbearing, as when heavily laden it will generally cast some of its fruit. I have often seen the ground beneath the old tree above referred to strewn with immature fruit.



ORIGINAL TREE OF APPLE MRS. PHILLIMORE.

(Raised by Mr. Ross.)

Doubtless a mulch of manure would check this habit of parting with its crop. Olivier des Serres is an excellent late Pear, and deserves a place in every garden, its season being from February to March. Ne Plus Meuris generally bears freely, both on espaliers and also on walls. The finest and best samples come from a good aspect on the wall, preferably south or south-east. Perhaps one of the most uncertain late Pears is Beurré Rance. I have had it delicious, and I have had it hardly so good as a Turnip. It requires a sunny and airy position. I have had this Pear good from espaliers occasionally, but the best samples I ever saw were grown on the gable end of a large thatched barn, the thatch projecting sufficiently to protect the blossoms in spring. Bergamotte

Esperen sometimes bears freely, especially on the Quince, but though an excellent flavoured Pear it has not yet established its reputation as a free-bearing kind. Doyenné du Comice with me comes in before Christmas, and can therefore hardly be called a late Pear, but it is, without exception, one of the best mid-season sorts, and will probably be more planted than it has hitherto been, as it grows freely in all aspects and situations, and succeeds well on the Quince. Josephine de Malines has received a high character in the past, but it does not do well everywhere. Some years ago I tried it on the Quince, but it was not a complete success. The tree did not grow well and the Pears were gritty. This might have been due to the soil of the locality, as certain Pears are gritty on particular soils. My impression is, now that building materials are reasonable in price, it would pay to put up roomy houses for the best late Pears, such as some of those I have named above, and others not so well known. I have never tasted an early Pear grown under glass worth eating, but most of the late Pears are improved in every respect by being grown under a glass roof. There would be no occasion to use artificial heat in a large house, as if well ventilated during winter the trees would not be much earlier in blossom under glass than against a wall. Strawberries in pots might be worked in the intervals between the Pear trees. I have grown Pears in pots, but in a good-sized house (and I should not care for a house for this work less than 30 feet wide) I would rather plant the trees out in the border and train them to trellises running along the houses. This arrangement would, I think, provide the largest amount of training space. Some day I have no doubt the cultivation of late Pears under glass will receive attention. E.

NOTABLE GARDENS.

WELFORD PARK, NEWBURY.

WHEN you get away from the beaten track in any county it is easy to find many beautiful spots, and in Berkshire it is, perhaps, easier than usual. At least, one is apt to think so when passing through the beautiful Lambourne Valley that stretches from Newbury towards Lambourne and the Vale of the White Horse. Leaving the quiet town of Newbury, the road passes along one side of the valley, giving one a glorious

view over rolling downs, dotted here and there with hamlets, each with its church tower or steeple nestling now in a lovely leaf-setting of green and gold and red. One gets glimpses here and there of the rippling stream in the hollow, known only as Lambourne trout stream if the knowledge of a local guide is to be trusted. And thus for some seven miles the road lies through undulating downland, up hill and down hill, with something of interest on every side.

Welford Park lies hidden amid giant trees, and you are close to the house before even a glimpse is obtained of it. Most remarkable among these giant trees perhaps are those

planted by Mr. Ross, who has been head gardener here for forty-four years. With pardonable pride he points out huge specimens of Douglas Fir 60 feet high that he planted some forty years ago. More remarkable still, perhaps, are two trees of *Abies grandis*, which Mr. Ross planted in 1878; now they are 70 feet high. Few men live long enough to see such results from their labours. Mr. Ross, who is eighty years old, has lived to see his tiny seedlings develop into giant trees; the woods contain many 60-foot-high Douglas Firs that he planted about 1870.

There is a curious history attached to the tree of *Abies homolepis* shown in one of the illustrations. The date of the introduction of this tree from Japan is given as 1870, but when Mr. Ross came to Welford Park in 1860 he found a tiny plant of it growing in a pot. He planted this out in the grounds, and now it is about 48 feet high. Last year its measurements were: Height, 46 feet; diameter of spread of branches, 26 feet; circumference of trunk 1 foot above ground, 5 feet 2 inches. In striking contrast to the rapid growth made by *Abies grandis*, there is a specimen of the Himalayan Weeping Spruce (*Picea Morinda*), which, although planted some years before them, is now only 15 feet high. Thus, so far as their behaviour at Welford Park is concerned, *Abies grandis* and *Picea Morinda* may be said to be the quickest and the slowest growing among the Firs. Other notable trees are *Picea Pinsapo*, 60 feet high, planted in 1840, and *P. Laricio*, planted in 1834, now over 60 feet high.

Mr. Ross has a record as a fruit grower and a raiser of new varieties such as few gardeners can show. He has obtained no less than three first-class certificates and eight awards of merit for new Apples, all raised at Welford by cross-fertilisation or by the selection of seedlings. Welford Park Nonsuch was the first to obtain a certificate; it is a seedling from Golden Harvey (The Brandy Apple). Armordel, a small late dessert Apple, also obtained a similar award some years ago. Charles Ross,

of which we give an illustration, received an award of merit and a first-class certificate in the same year. This Apple is the result of a cross between Peasgood's Nonsuch and Cox's Orange Pippin. Other varieties for which Mr. Ross has obtained an award of merit are Bella, Paroquet, Opal, and Atalanta (all fairly old sorts), while among those of recent introduction are Mrs. Phillimore (Lord Burleigh × Mr. Gladstone), The Honblon, and The Rival (both obtained by crossing Peasgood's Nonsuch with Cox's Orange Pippin). The variety Hector Mac-



ABIES HOMOLEPIS AT WELFORD PARK.

(This is the oldest tree in the country, and is about 48 feet high.)



APPLE RIVAL. (Natural size. Raised by Mr. Charles Ross.)

donald (Mr. Ross does not know the parentage) received an award of merit at the Royal Horticultural Society's fruit show on the 4th ult. Another new one, called Redwing, a large, richly-coloured fruit, will be exhibited shortly. It may not be generally known that Mr. Ross raised Pear General Wauchope. For some time past he has been trying to cross-fertilise Cornish Gilliflower with Cox's Orange Pippin, but so far his efforts to obtain seeds have been fruitless. With such a record as a raiser of new Apples Mr. Ross, we feel sure, will finally succeed in uniting the good qualities of these two famous sorts.

T.

THE FLOWER GARDEN.

PROPAGATING TROPEOLUMS BY CUTTINGS.

VARIETIES of *Nasturtium* which are derived from *Tropeolum majus*, *lobbianum*, and their hybrids are usually propagated by seeds, which reproduce almost exactly the characteristics of the variety. But there are exceptions, especially among the double-flowered and variegated leaved sorts, which are both sterile; and likewise for some others, such as *C. chameleon*, *Mme. Günter*, and its varieties, whose characteristics are so distinct that they must be preserved by taking cuttings. This process of increase can be applied to any interesting form it is desired to perpetuate, when by seeds its characteristics would not be reproduced. Striking the cuttings—a very easy matter—is done from July to September either in the open air or under glass. The cuttings may be placed at once in the garden or in small pots; in each pot four or five cuttings may be placed. They should be chosen from the lateral shoots, and cut to a length of 7 centimetres or 8 centimetres from a node. After the cuttings have struck—which they will do quickly and easily—they should be potted in small pots either singly or two or three together, and then left in the open air until October. Towards the end of this month they should be placed in an

unheated greenhouse, receive very little water, and be placed as near the glass as possible. The double-flowered and variegated leaved varieties trained over a framework when kept in the greenhouse form plants of much beauty. The varieties destined for the open garden are potted, placed on a hot-bed, and finally put in their places in the open air in May.—
JULES RUDOLPH,
in *Le Journal de la Société Nationale d'Horticulture*.

NEW CALO-CHORTI.

THIS genus of exquisite Californian bulbous plants has been enriched by the addition of two new species of real garden worth.

C. Goldyi (Watkins) is considered by some to be a



PEAR CHARLES ERNEST. (Slightly reduced.)

hybrid between *C. Beuthami* and *C. amabilis*. It is a very interesting little plant, as pretty in its way as any of its brethren. The flowers are straw yellow, 1 inch across, erect, and covered on the inner surfaces with long, silky, sulphur-tinted hairs. A few crimson-tinted shorter ones occur low down in the cup. The petals are rounded and very hooded. Its bulbs are large, and they throw up several stems, freely branched, and bearing from fifteen to twenty flowers on each plant. The leaves are narrowly lanceolate, varying in length, and they do not differ materially from the majority of their tribe.

C. pulchellus vera (Douglas) is a fine strong-growing plant, better in the garden than the remainder of the *Cyclobothra* group of *Calochortus*. It received an award of merit from the Royal Horticultural Society when shown by Messrs. Wallace and Co. of Colchester some months ago. It has very erect branching stems, above 1 foot high, bearing upwards of a dozen yellow flowers, the petals of which are markedly hooded and fringed with short, stiff hairs on the margins. They average $1\frac{1}{2}$ inches in diameter, and are always pendent. This plant is the original *C. pulchellus*. It was not introduced to general cultivation from the first, and the discovery of a plant similarly shaped but much smaller, now known as

C. amabilis (Purdy), led collectors to suppose it was Douglas's plant, and it has been widely distributed as *C. pulchellus*. It rarely exceeds 6 inches in height, and produces branched nodding stems bearing globular yellow flowers half the size of those of the true *C. pulchellus*, but its yellow

colouring is brighter and richer. *C. pulchellus* is strong enough for border cultivation, whereas the spurious *C. pulchellus* is better adapted for a rock garden slope. Both plants require a slightly shaded position during summer and a light soil, whilst their winter resting season should be rather dry.

A complete and exhaustive monograph of the *Calochortus* was published in *THE GARDEN*, December 21, 1901, and subsequent numbers, and may be referred to for further information respecting these charming little bulbous plants.

GEO. B. MALLETT.

WILD GARDENING IN SPRING.

(Continued from page 289.)

ANOTHER experiment I made was to take the turf up and trench a space some 18 inches deep. This I planted with bulbs in the loose soil. They certainly started well, but just before blooming appeared to be drawn down into the ground and developed ill-formed blooms and yellow foliage. I supposed it was the roots growing down and seeking for moisture that brought them into this undesirable condition.

Alfred Austin tells us in his pretty book on his wild garden at Swinford Old Manor, that "Nature is continually seeding even its oldest scholars to the bottom of the class for some stupid blunder, just in order that they may by patience and perseverance work their way to the top again."

Being at the bottom of the class, I tried again, and on the second occasion dug the hole 6 inches deep only, and planted the bulbs on the firm bottom. This, I am pleased to say, answered much better, but nothing, I find, is saved by this system in regard to time and trouble, as you have first to take off the turf and then replace it.

Here I should like to give a word of advice about the advisability of selecting

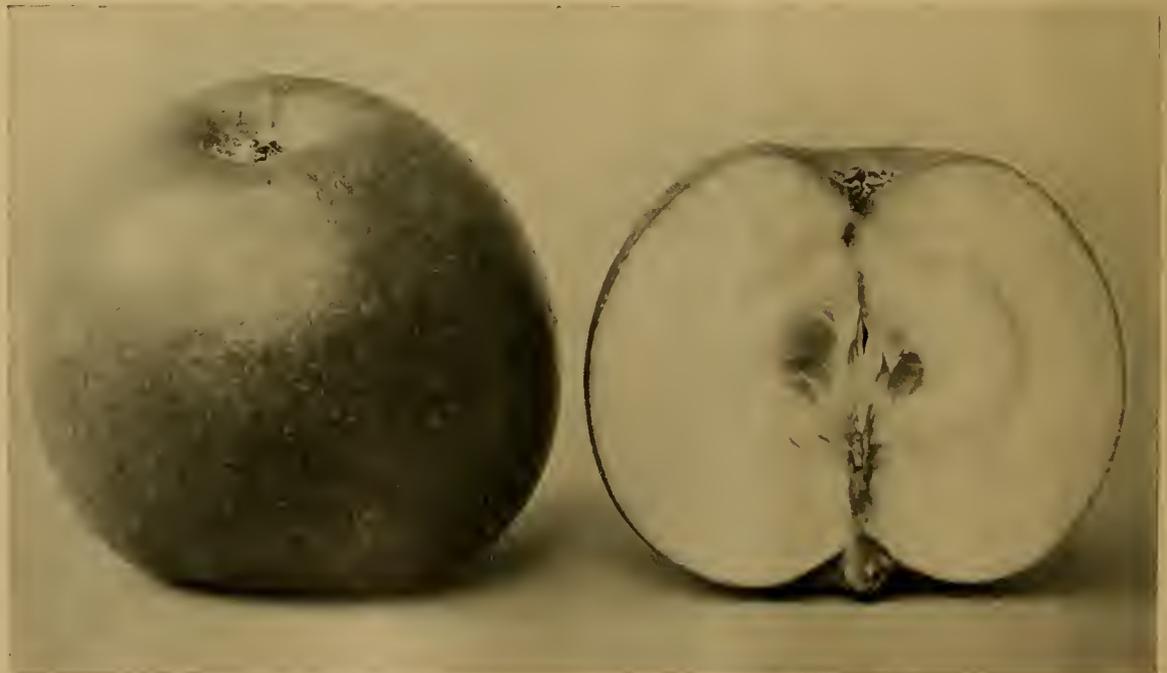
GOOD SOUND BULBS.

If it is important to have good strong bulbs for the borders, how necessary it must be that the best should be chosen to force their way through the carpet of turf.

I find that when planting Primroses and Polyanthus Primroses, &c., in grass, it is very important first to cultivate them in a border, and only the strongest roots should be used for this purpose. Move them into the grass in early spring when they begin to show bloom. With a little care in planting they will soon look natural and at home. When they have done blooming I dig up and divide the best strains, and bring them on for the next year in a cool shady border. If you leave them in the grass they get mown down, smothered, and become poor and weak the next season.

Do not plant the ordinary small flowering Polyanthus. The colours are too undecided, and in the grass have a washed-out and rusty appearance. Yellow, orange, and pink are best. The brighter and larger the flowers the better.

You need not be too particular about a few strong weeds growing among the flowers. I consider that a piece of sheep's Parsley, a Dock, or a



APPLE CHARLES ROSS. (Slightly reduced.)

Thistle here and there, gives the show a more natural appearance, and is rather an agreeable addition than otherwise; and here I would just like to say a good word for your old enemy the Dandelion. It has not many friends among gardeners, I know. Now I have a portion of my orchard that is simply full of them, and there I plant a good few late scarlet and white Tulips. You would be surprised to see what a pretty show they make on a sunny May morning growing in company. One of the brightest things I have all the year round is this display, but I must confess that I cannot inspire my gardener with much

should, of course, not forget the blue and white Bluebells" which I previously referred to.

The greater portion of the meadow I would plant thickly with tall-growing early and late Daffodils and Tulips, with some Hyacinths, also large roots of the Polyanthus Primrose. I should not consider how many colours were mixed together, for it is a curious fact that however colours may clash in the borders in grass gardening Nature seems to have a way of agreeably adjusting them. Nothing seems to jar or be out of place.

In the moist bottoms I should introduce such things as the marsh Marigold and many other

seem to like, and the combination has in a very short time a charming effect. I had some Roses planted in this way some years ago which have mounted to a height of 15 feet to 20 feet.

My experience is that if you wish to be successful with climbing Roses you must let them grow freely and pretty much as they like, using the pruning knife but very little. Train them carefully, and be sure and give them a plentiful supply of farmyard manure water during the spring and summer months. In



ROSE THALIA ON OLD APPLE TREE.

enthusiasm for this class of gardening, especially when the seeds, later on, are being blown about by the wind.

My ideal spring garden is an undulating meadow running towards the house, fringed with copses of thin undergrowth. In the meadow I should like to have some old spring-flowering trees, such as Crabs, Apples, and Cherry trees. Through the meadow I would have narrow grass walks, leading, as it were, everywhere and yet nowhere definitely. In the short turf near the edges of the grass paths I would cultivate little colonies of Grape Hyacinth, Chionodoxa, Scilla sibirica, dwarf Daffodils, Hyacinths, and Tulips. In suitable spots, where the grass does not grow so rank, I would have the blue Apennine Anemone, also our native white one, Snowdrops, Winter Aconites, Crocuses, Cowslips, all sorts of Primroses and Violets, Forget-me-not, and red and white Daisies. I

plants of a moist-loving nature.—Paper read by Mr. A. TROWER at a meeting of the Redhill, Reigate, and District Gardeners' Association, September 27.

ROSES OVER FRUIT TREES.

SHOULD there be an old orchard with ancient non-bearing trees, it is a good plan, instead of doing away with them altogether, to use the old trunks as supports for climbing Roses. The boughs should be shortened and the Roses allowed to climb up and fall over the sprays in as natural a way as possible. There is something about old Apple trees, that Roses

giving them manure water take pains and make certain that it reaches the roots. I find a good plan is first to carefully remove the surface soil round all the trees, making a hollow holding about 2 gallons. If the ground is very dry I go all round and give them clear water first, then go back to the first tree and give them the manure, and when I have finished with that some more clear water. The same treatment applies to many of the H.P. Roses if you want a really charming and showy Rose garden, and an abundance of bloom all the summer and autumn. It is a great mistake to prune closely. I have dwarf bush H.P. Roses that are quite twelve years old; they are a mass of blossom every year. I prune them to bushes 3 feet to 4 feet high. New growth every year

is only a matter of feeding during the spring and summer. The free growth system, too, has another great advantage—you not only get many more Roses, but they are seen in the distance, and are not hidden by shrubs and other plants. E. T.

THE ROCK GARDEN.

SAXIFRAGA FORTUNEL.

THERE are not many flowers in bloom in the rock garden during October. Here and there patches of *Colechicums* make bright splashes of colour, pushing up suddenly through tufts of mossy Saxifrage or other carpeting

plants, but save for some clumps of *Lobelia cardinalis* Queen Victoria, numerous late Phloxes, amongst which Marquis de St. Paul, a lovely white variety with brilliant salmon-rose eye, is a great favourite, *Heleniums*, and a few Michaelmas Daisies, planted amongst the neighbouring and sheltering shrubs, this part of the garden would be rather unattractive. On the north side of the rock garden, in a shady and sheltered nook, a little group of Fortune's Saxifrage is in bloom. What a dainty and lovely flower this is! The exquisite panicles of pure white blossom seem so delicate, and the half-transparent light green stems so fragile, that you would think they must break off with every gust of wind. It is essentially a connoisseur's flower. By this I mean that it is one of those good things which a true flower lover would never pass by without wishing to examine closely, but which an ordinary person might call "pretty," and not give it another thought afterwards. It is certainly true that this plant is very much neglected in many gardens, chiefly because it is supposed to be tender. In Vol. LVI. of THE GARDEN, page 383, under the heading of "Stove Plants," appears the following note in reference to this plant:—

"In the outdoor garden this autumn-flowering species is of but little value by reason of its tender nature. In the greenhouse, however, the plant is worth growing in pots, and with liberal treatment flowers with considerable freedom. It is only rarely, however, that sufficient interest is taken in these out-of-the-way kinds to do them justice. All the same, a well-grown plant is very pretty at the present time."

There is, however, no doubt as to its perfect hardiness, but owing to its late period of flowering, usually October, a sharp frost may cut it down before the blossoms have had time to expand. Yet how easy it is to give it protection—a light hand-frame placed over the plants will allow them to expand their flowers without hindrance. To those amateurs, and I know that there are many, who object to having hand-frames, bell-glasses, and other such things in their rock gardens, I would say grow this plant in a cold frame. I have never attempted to grow it in heat, so will not venture to

express an opinion as to whether it is to be recommended. But as it can be grown to perfection both out in the open and also in a cold frame, I cannot see the necessity for doing so. The panicles of flowers are usually 8 inches to 12 inches in height, and the petals are notched in a most peculiar manner, and are of uneven length. The bottom petal is very long, the two adjoining it are about half the size, while the two upper petals are still smaller. The anthers are of a bright golden colour. It is an exquisite flower for cutting, lasting well in water for many days. To enjoy it thoroughly place a few stems by themselves in a plain glass, then their true beauty will be more appreciated than if they were mixed up with other flowers. I never like to see Maidenhair Fern used with hardy flowers, but in this case a few fronds arranged

introduced as far back as 1863, and takes its name from the celebrated collector, Fortune, who discovered it in China. To those who do not mind the slight trouble of affording it a little protection just before and during its period of blooming it is a plant to be recommended. We have none too many good outdoor flowers in the late autumn days, and this plant possesses a quiet beauty and distinctiveness which alone make it well worth growing. Even in these days, when gardening has become more popular and the use of hardy plants is more fully understood than ever before, the complaint is still made that there is too much sameness in gardens. To herbaceous borders, this complaint is especially applicable, because, although originally planted with the best plants, the

coarser and more aggressive members of the border have been allowed to grow at will, the result being that the smaller and choicer plants have disappeared. Fortune's Saxifrage will not submit to being overshadowed and starved by coarse herbaceous plants. It is best grown as I remember to have seen it in Bath Botanic Garden, where Mr. Milburn had grouped it in a shady part of the upper bog garden.

ARTHUR R. GOODWIN.

The Elms, Kidderminster.

NOTES ON HARDY PLANTS.

CYCLAMEN CILICICUM.

HARDY Cyclamens are so beautiful, small though they are compared with the magnificent varieties of *C. persicum*, that they hardly ever fail to attract those who visit gardens where they are cultivated. There is a peculiar charm about those which come in autumn, especially when it is drawing to a close and winter is near, as even when the flowers are over we generally have their prettily marked leaves all through the winter. The little *C. cilicicum*, now more plentiful than it was a short time ago, deserves a few lines at the present time, for a little flower which comes in bloom about mid-October or so and continues for a little while is welcome. This species has of late, through the medium of Mr. Siehe of Mersina and a few others, been imported in considerable numbers, and I have at present in bloom in my garden a little clump of *C.*

cilicicum which is very delightful, with its little flowers, varying in colour from white to pale rose, each with a purple spot at the base. The leaves are small, nearly round, and with untoothed edges. They are produced with the flowers, and are faintly zoned with grey-green. In the excellent monograph of the hardy Cyclamen by the Rev. W. Wilks, M.A., which was read at the meeting of the Royal Horticultural Society on January 13, 1891, and was published in the *Journal of the Society*, Vol. III., Part 2, Mr. Wilks says, "scent unrecorded." It has, however, a slight, but perceptible, odour, though not nearly so fragrant as some of its congeners. Mr. Wilks also informs us that it is a near relative of *C. europæum*, from which it is, according to the late Mr. Atkins, distinct because of its sharply pointed petals or calyx segments, and by the roots proceeding from the centre of the



ROSE PAUL'S SINGLE WHITE ON OLD PEAR TREE.

with it will help to show it to advantage. It is a most floriferous plant, and even the smallest example will generally bloom. The whole plant is of rather a succulent nature, and the deep green kidney-shaped leaves, as also the leaf stalks, are covered with whitish hairs. The leaves, which are very handsome, are lobed and toothed, and the beauty of the plant is enhanced by the bases of the leaf stalks, which are bright red in colour, and this extends part of the way up the stalks. As for culture it wants none. I grow it in a mixture of peat and loam, but it does well in either, and only demands a moist and shady position and protection from drought. It is easily increased by division in spring, and a stock of plants may be soon worked up. According to "Nicholson's Dictionary" it was

corn. This little Cyclamen is probably perfectly hardy. It succeeds here under the shade of small deciduous trees. My tubers were planted in September, 1902, on their arrival from Mersina, and they are in light sandy loam with the addition of a little lime rubbish. S. ARNOTT.

Carsethorn, by Dumfries, N. B.

SAXIFRAGA FORTUNEI.

THIS attractive Saxifrage, referred to in THE GARDEN of the 22nd ult., as in flower at Kew, is so nearly hardy that there must be many in the south who could hope to grow it with perfect success in the open with a little care in the most severe winters. I cultivated it on a rockery facing south-south-east for several years, and during that time it survived several winters which were fatal to plants of greater reputed hardiness. It seemed, like many other plants, to suffer more from wet, succeeded by sharp frost, than from a dry cold, and it was simply owing to having omitted to follow my usual practice of covering the plant with a sheet of glass and putting a small mound of fibrous material about the crown that I eventually lost it. I hope to replace it before long. Its late flowering is one of its greatest claims upon us, but it pleases everyone with its panicles of white flowers, of a form far from universal in the genus. Its leaves, as Mr. Osborn remarks, are rich dark green, and set off the white flowers well. Those who know *S. cortuseifolia* will have an idea of the appearance of its congener *S. Fortunei*.

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

VERNONIA ARKANSANA.

THE Iron Weeds, a group of tall-growing Aster-like composites from America, introduced to our gardens long ago, do not seem to have become very popular, although they are effective enough flowering with colonies of Asters at this season. The best of those in cultivation is *V. arkansana*, a sturdy, bold-habited plant, 5 feet high, whose giant heads of the richest rosy purple colouring have been much admired by many of late. The flowers are three-quarters of an inch across, and are produced in flattened cymes containing many hundreds, the individual flowers being composed of a disc of short-petaled florets and an outside "ray" series of long-tubed fringed ones, reminding one of the common Cornflower in the petal arrangement. It is an effective border plant, particularly when associated with *Pyrethrum uliginosum* and Asters of the *Novii Belgii* and *paniculata* section, keeping all *Kniphofias* of the *aloides* section well away from it, or the purple will appear "hard." I do not know what feature gave the plants their popular name; their roots justify it in their toughness, and there is a ruddy bronze tone about the leaves and stems. It lasts a long time in flowering condition—about six weeks of the Aster season—and one may expect it to outlive 99 per cent. of all garden plants. G. B. M.

USEFUL DWARF POLYGONUMS.

THE name Polygonum is usually associated with tall and coarse-growing weedy plants, of which few are worth a place in any garden. Of a different type, however, are the three dwarf creeping species from the Himalayas, two of which are perennials, while the other one is annual. Although they have all been in cultivation for a long time they are not seen so often as their merit deserves. The best known, perhaps, is *P. affine*, a plant peculiarly adapted for covering tree roots and rocks with its trailing shoots, where it will flourish and flower continually for several months. It is under these conditions that it is found growing in its native habitat, where it grows luxuriantly on moist rocks. Moisture, however, is not essential, as with partial shade it will do in rather dry places where little else will grow. With a close mat of evergreen foliage the rosy red flowers are borne on stems about 9 inches in height. Similar to the last in some respects, but a more refined-looking plant, *P. vacciniifolium* does not grow so tall. It will spread rapidly in congenial moist conditions amongst stones, soon occupying a

considerable space and producing its rosy-coloured flowers in profusion on stalks a few inches high. As it does not begin to bloom till September it helps to brighten the rock garden when flowers are very scarce in the late autumn months. The other species, *P. capitatum*, is an annual, very useful for carpeting the bare ground either on the lower parts of the rock garden or beneath taller growing plants in beds. Although cut down by the first frosts it sows itself, seedlings appearing thickly in the late spring. These grow rapidly and soon cover the ground, while the globose heads of pink flowers commence to show soon after midsummer. W. I.

STOKESIA CYANEA.

THERE are two distinct forms of this exceedingly popular plant, one form that flowers in the beginning of winter and another that flowers in August and throughout autumn, the latter being obviously the better garden plant. It makes a close tuft of Plantain-like leafage, producing many rich Cornflower blue heads of showy flowers that resemble *Victoria Asters* in size and in the deeply cut petals, while the shape of the flower is that of *Centaurea*. A colony of strong plants give a wonderful display in the autumn flower border, and one can use the plant to good effect on large rockeries. This early-flowering form never seeds under cultivation so far as my experience shows, and imported seeds of *Stokesia* have always given me the tardy and useless variety, which seems a hopeless plant for English gardens. It is a very hardy species, thriving well with quite ordinary treatment, and propagation is only possible by division of the clumps. G. B. M.

GARDENING OF THE WEEK.

FLOWER GARDEN.

WINTER PROTECTION.

WHEN November sets in it is time to prepare for the winter. All tender plants which are to remain out of doors must receive some protection. In many places it is necessary to draw up the leaves of *Kniphofias* (*Tritomas*), tie them together, and cover the crowns with a layer of leaves or ashes. After the first frost the leaves of *Gunneras* should be cut off, and these, minus the stalks, inverted over the crowns will be found sufficient protection in the southern counties. Where the cold is more severe the crowns may be covered with dry Bracken, which can be kept in place by lacing long sticks, with their ends in the ground, over the Fern.

Plants which suffer more from excessive moisture than a low temperature will be the better if a small heap of broken coke is placed around their stems. But in most cases there is nothing better than Nature's covering—a good layer of leaves. A fairly close layer of leaves 3 inches or 4 inches thick will keep out a very hard frost and much of the rain. A sprinkling of soil will keep them from being blown about.

I have found the following plan most successful for protecting young trees and shrubs. Enclose the plant with wire netting, small meshed if there are rabbits about, leaving about 9 inches clear around the plant. Put in about 4 inches of leaves, and on the top of this loosely place some Bracken; the amount will depend on the nature of the plant. If it is deciduous and considered very tender, I should place the Bracken around the whole of it. With evergreen shrubs less Bracken should be used, and finally stick into the soil around the plant a few large branches of some hardy evergreen, *Rhododendron ponticum* for choice. This will in most cases give ample protection, and also admit a fair amount of air and light.

GLADIOLUS.

The corns of these should now be lifted, leaving about 6 inches of the stem. They should be hung up to dry before being finally stored. The bulbs

of *Galtonia* (*Hyacinthus*) *candicans* and the roots of *Tropæolum tuberosum* and kindred species may also be taken up and kept in a frost-proof shed.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

WINTER-FLOWERING PLANTS.

OF these there is a great variety used for both conservatory and room decoration. The object, after getting them into flower, should be to prolong the period during which they will continue in full beauty, and to do this the requirements of each should be considered. None, perhaps, more than the *Chrysanthemum*, at the present time, will demand such attention, and while on the one hand, especially during fine weather, these plants require a fair amount of water at the root, care in its application must be exercised to avoid any undue spilling of water about the floors and stages of the house in which they are in flower. Clear water should be applied regularly, as the foliage must not be allowed to flag or the soil in the pots gets too dry. Give air, but in suitable weather. Avoid draughts and maintain a buoyant atmosphere by the judicious use of fire-heat.

PRIMULAS, PELARGONIUMS, BOUVARDIAS,

and *Cyclamens*, which continue to make growth and are throwing up fresh flowers, require a fair amount of water at the root, with occasionally a little stimulant, either solid or liquid. Maintain a buoyant atmosphere by the careful use of fire-heat, and admit air on all occasions that are favourable. *Daphne indica*, the flowers of which will last a fair time in perfection with proper care, should be kept in a perfectly cool and airy temperature, and be given water sparingly at the root.

BEGONIA GLOIRE DE LORRAINE.

The flowers of this are now opening freely; it should not be given a too moist atmosphere or a very high temperature, 50° to 55° being quite high enough, with a little air on bright sunny days. This plant being grown, as it generally is, in small-sized pots, requires plenty of feeding, and for this purpose use the following: Clay's Fertilizer, liquid made from cow and sheep manure, as well as soot-water.

RHODODENDRON PRÆCOX.

This can with great ease be had in flower by Christmas, or even earlier. For this purpose a few plants, the growth of which has been thoroughly matured, should be placed in ainery that is just being started, or in a house the temperature of which is not allowed to rise above 45° to 50°. A gentle syringing of the plants in a low temperature, with the admission of air to check the damp, will make the flower-buds swell without inducing the young growth to start. Immediately the buds are half open afford more heat and air to bring them quickly into flower. The flowers will come a brighter colour, and last much longer in good condition, providing that abundance of air is admitted directly the flowers are open.

J. P. LEADBETTER.

Tranby Croft Gardens, Hull.

FRUIT GARDEN.

POT VINES.

IF ripe Grapes are required by the middle or end of April the house and Vines must be prepared for starting. Select well-ripened canes with plump-buds of the varieties *Black Hamburgh*, *Foster's Seedling*, and *Madresfield Court*; all these answer well for early forcing. Remove a little of the surface soil from the pots and replace with good fibrous loam, wood ashes, and a sprinkling of some approved Vine manure. The house should be light and airy, adequately heated, and facing south. Make up a bed of fresh leaves, and place the Vines on inverted flower-pots or pedestals of bricks, and fill to the rims with leaves. Make firm, taking care that the bottom-heat does not exceed 65°. Tie the canes down horizontally near the surface of the bed until the buds break, and keep the house closed for the first fortnight without any fire-heat unless the nights are very cold. After

then give a temperature of 50° at night until the buds break, increasing the temperature to 55° as the buds increase in size, with the usual rise from sun-heat during the day. Keep the atmosphere of the house moist by occasionally syringing the canes with tepid water, according to the weather, and afford enough water only to keep the soil moderately moist until the buds break, as too much water at first causes many of the roots to rot.

EARLY PERMANENT VINES.

These having been pruned and cleaned need not be started until the end of the month or beginning of December. In the case, however, of young Vines which have not been forced previously, a longer time should be allowed for them to break. Tie the canes down, keeping the points low, syringing the Vines two or three times daily according to the weather to keep the atmosphere moist. Examine the borders, and if rather dry water with tepid water. Protect outside borders from frost by covering them with leaves, afterwards placing spare lights over them to keep off heavy rains. Prune later Vines, and clean the houses as soon as they are cleared of Grapes, as advised in the calendar of September 17, so as to give them as long a rest as possible. Top-dress the borders with good turfy loam, wood ashes, lime rubble, and bone-meal, with a sprinkling of Vine manure to old Vines.

LATE GRAPES.

Water if necessary, as dryness at the roots is often the cause of the berries shrivelling. Choose a fine bright morning for doing this work, when the ventilators can be freely used. Remove the mulch and thoroughly water, afterwards replacing the manure. Look over the bunches once or twice a week for decaying berries, as during this month Grapes often keep badly owing to falling leaves and climatic changes. Keep the pipes moderately warm, and a night temperature of 50° to 55°. Pay careful attention to the ventilation when the weather is wet or foggy, and keep the house clear of plants that require watering. If only a few bunches are hanging in midseason houses, these should be cut and bottled at once to allow the house to be thrown open, so as to give the Vines as much rest as possible.

Impney Gardens, Droitwich.

F. JORDAN.

KITCHEN GARDEN.

THE spell of dry and mild weather still continues. There has been no frost to do any damage at the time of writing. Those alive to the benefit of pushing forward the work at this period will have got the garden into a trim and tidy condition before winter, and have cleared the ground of the various root crops—Beet, Carrots, &c. Push forward the work of preparing manure for the kitchen garden and many other operations that can be best carried out at this date.

CELERY.

The final earthing up should now be given, and should be done in the most careful manner. The soil must be broken finely with the spade, and carefully packed round the plants to within 6 inches of the top of the leaf-stalk, beating the surface smooth with the spade. Should rain water be inclined to lie at the bottom of the trenches between the ridges the soil should be loosened. A quantity of dry covering material—Bracken, straw, or such like—should be in readiness for placing on the top of the ridges in the event of severe frost.

CAULIFLOWER.

Those from the very latest sowing will, in this exceptionally mild autumn, be found to be the most suitable for transferring into frames. Those who have delayed the work till now will be most likely to bring the plants through the winter in the right condition. Those recommended to be sown in August are now by far too large, and September-sown plants are most suitable. After they have been placed in their winter quarters give a good watering. The sashes may be left off until frost appears. Beautiful heads of Autumn

Giant are still plentiful. The leaves should be broken over the heads as protection against frost.

HORSE RADISH.

Where this has become weakly a new bed may now be formed. Beds in most cases should be renewed every three or four years, or a portion of the plot replanted every season. Make sure that every piece of the old roots is forked out. Give the land a thorough trenching with plenty of good farmyard manure worked in. A sufficient quantity of the thick roots should be kept to make the new plantation. The remainder may be stored in sand for use throughout the winter. See that all the small and useless roots are removed from the ground, as it is a plant difficult to eradicate. The ground must be very carefully forked over, and the manure should be placed at the bottom of the trenches only.

Hopetoun House Gardens,

THOMAS HAY.

South Queensferry, N.B.

ORCHIDS.

CIRROPETALUM PICTURATUM.

THIS interesting Orchid is now growing apace, and the requisite repotting or resurfacing may be safely carried out, its habit of growth being such that it soon overgrows its receptacle, yet in this case I do not advise potting on that account if the compost is sweet. Although it is somewhat difficult to place this plant nicely in a small pot, yet I prefer a pot to a shallow pan. Nearly half fill it with chopped rhizomes; the roots are best placed where they have a deep rooting space. The compost should consist of equal parts of fibrous peat and chopped sphagnum; pot rather lightly, keeping the material low enough to allow of a sphagnum surfacing. When finished the surface should be on a level with the rim of the pot, and the rhizome growth of the plant being on the top, the growths can be drawn considerably to the centre of receptacles with the aid of wire pegs. Suspend them in the most humid part of the intermediate house; heavy waterings are not desirable. Damping of the surface moss after one good watering to settle the compost will keep sufficient moisture in the compost during the winter months.

CIRROPETALUM THOUARSII AND C. MEDUSÆ.

The growth on these beautiful and quaint forms is now completed. Water should only be given when the plants become fairly dry, but do not allow them to become so dry as to cause shrivelling. Place them in the warmest part of the Cattleya house, so that all available light reaches them.

RESTREPIA ANTENNIFERA.

Well-grown plants of this pretty botanical Orchid are in flower during most of the year, and it is well worthy of a place in every collection. The Odontoglossum house suits it, but during the winter months water should be given very sparingly. Ours are grown with the Masdevallias, and the treatment afforded is very suitable, viz., only water from now till the end of February, when they have become very dry. Potting may be done now if the young growths are started. If not, it is best deferred till new basal growths are visible, using a mixture of two parts peat, two parts sphagnum, and one part leaf-soil mixed with some small crocks and coarse sand. The pots should be nearly half filled with rhizomes. This species does not require potting often. Surfacing suffices unless the compost has become soured.

LÆLIA MONOPHYLLA.

This beautiful orange scarlet-flowered Orchid, although miniature in growth, is very attractive, and it lasts in flower for a considerable season. If it could be imported in quantity it would soon become very popular, and prove of considerable value to those interested in hybridising. The flowering season is now over, so they will require very little water till the early spring months. Any moss that may have overgrown the small, slender bulbs should be removed to allow the light to reach the basal dormant eye. A temperature a

little higher than that which the cool house affords is most suitable both now and during the growing season.

LÆLIA HARPOPHYLLA

is now growing freely. The compost for well-rooted plants should be kept fairly humid by lightly damping over the surface moss; heavy waterings are very injurious. To obtain the best flowers place the plants well up to the light in the intermediate house. Whenever possible damp freely between the pots. This Lælia is a most useful buttonhole Orchid, and one that if given fair treatment will flower freely and prove very desirable during the early spring months.

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

SELECTIONS OF APPLES FOR SPECIAL PURPOSES.

It has been thought that selections of Apples and Pears, two of the most popular of fruits for gardens of varying size, would be useful to our readers. We append these lists, which have been prepared with the greatest care, and may be thoroughly trusted.

EIGHT BEST APPLES FOR SMALL GARDENS.

Dessert.		
Mr. Gladstone .. ..	.. ..	July, August
Lady Sudeley .. ..	.. ..	September
Cox's Orange Pippin .. ..	.. ..	October, November
Cockle's Pippin .. ..	.. ..	Christmas

Cooking.		
Pott's Seedling .. ..	.. ..	August, September
Stirling Castle .. ..	.. ..	October
Bismarck .. ..	.. ..	November, December
Lane's Prince Albert .. ..	.. ..	January

The above are regular bearers, succeed in any form, and require very little pruning.

BEST APPLES FOR LARGER GARDENS.

Dessert.		
Mr. Gladstone .. ..	.. ..	July, August
Devonshire Quarrendon .. ..	.. ..	August
Lady Sudeley .. ..	.. ..	September
Margil .. ..	.. ..	October
King of the Pippins .. ..	.. ..	November
Cox's Orange Pippin .. ..	.. ..	October, November
Mother .. ..	.. ..	" "
Egremont Russet .. ..	.. ..	December
Allington Pippin .. ..	.. ..	December, January
Ribston Pippin .. ..	.. ..	October, November
Cockle's Pippin .. ..	.. ..	Christmas
Old Nonpareil .. ..	.. ..	December, January
Claygate Pearmain .. ..	.. ..	January
Lord Burghley .. ..	.. ..	February
Sturmer Pippin .. ..	.. ..	March, April
Allen's Everlasting .. ..	.. ..	" "

Cooking.		
Early White Transparent .. ..	.. ..	August
Pott's Seedling .. ..	.. ..	August, September
Ecklinville Seedling .. ..	.. ..	October
Stirling Castle .. ..	.. ..	October
Warner's King .. ..	.. ..	November
Lord Derby .. ..	.. ..	November, December
Blenheim Orange .. ..	.. ..	" "
Bismarck .. ..	.. ..	" "
Tower of Glamis .. ..	.. ..	December
Golden Noble .. ..	.. ..	" "
Lane's Prince Albert .. ..	.. ..	January
Wellington .. ..	.. ..	" "
Bramley's Seedling .. ..	.. ..	" "
Alfriston .. ..	.. ..	February
Newton Wonder .. ..	.. ..	" "
Northern Greening .. ..	.. ..	March

APPLES FOR CORDONS.

Dessert.		
Mr. Gladstone .. ..	.. ..	August
Devonshire Quarrendon .. ..	.. ..	August
James Grieve .. ..	.. ..	September
Wealthy .. ..	.. ..	October
Margil .. ..	.. ..	" "
King of the Pippins .. ..	.. ..	" "
Mother .. ..	.. ..	" "
Calville Rouge Precoce .. ..	.. ..	" "
Cox's Orange Pippin .. ..	.. ..	October, February
St. Edmund's Pippin .. ..	.. ..	November
Ross Nonpareil .. ..	.. ..	" "
Adams' Pearmain .. ..	.. ..	December
Hubbard's Pearmain .. ..	.. ..	" "
Allington Pippin .. ..	.. ..	November, February
Scarlet Nonpareil .. ..	.. ..	January, February
Norman's Pippin .. ..	.. ..	January
Lord Burghley .. ..	.. ..	February
Duke of Devonshire .. ..	.. ..	" "
Rosemary Russet .. ..	.. ..	" "
Sturmer Pippin .. ..	.. ..	Very late
Allen's Everlasting .. ..	.. ..	" "
Fearu's Pippin .. ..	.. ..	" "

APPLES FOR CORDONS.

Cooking.

Duchess of Oldenburg	August
Pott's Seedling	September
Lord Grosvenor	"
Lord Suffield	"
Grenadier	September, October
Golden Spire	"
Seaton House	"
Lord Derby	November
Bismarck	December
Lane's Prince Albert	January, March
Sandringham	February
Alfriston	February, March
Calville Maltingre	"
Calville Rouge	"

PROFITABLE APPLES FOR MARKET (GROWN ON PARADISE STOCK AS BUSHES).

Dessert.

Beauty of Bath	July, August
Red Quarrenden	"
Lady Sudeley	September
Worcester Pearmain	September, October
Yellow Ingestrie	September
Duchess' Favourite	September, October
King of the Pippins	October
Cox's Orange Pippin	November, February
Beauty of Barnack	November
Allington Pippin	December, February
Gascoigne's Scarlet	December
Christmas Pearmain	"
Winter Quarrenden	"
Baumann's Reinette	January

Cooking.

Early White Transparent	July
Lord Suffield	August, September
Pott's Seedling	"
Lord Grosvenor	"
Early Julien	"
Ecklinville Seedling	September, October
Grenadier	"
Stirling Castle	"
Golden Spire	"
Lord Derby	October, November
Stone's Apple	"
Tower of Glamis	"
Warner's King	"
Bismarck	November, December
Lane's Prince Albert	December, March
Bramley's Seedling	"
Newton Wonder	"

(GROWN AS ORCHARD STANDARDS.)

Dessert.

Beauty of Bath	August
Devonshire Quarrenden	September
Duchess' Favourite	End of September
Worcester Pearmain	September
King of the Pippins	October
Col. Vaughan	September, October
Cox's Orange Pippin	November, February
Allington Pippin	"
Blenheim Orange	"
Gascoigne's Scarlet Seedling	December, January

Cooking.

Lord Grosvenor	August, September
Lord Suffield	"
Grenadier	"
Golden Spire	October
Warner's King	November
Tower of Glamis	"
Lord Derby	"
Waltham Abbey Seedling	November, February
Bismarck	December
Blenheim Orange	November, February
Wellington	January, March
Newton Wonder	"
Bramley's Seedling	"
Northern Greening	"
Winter Queening	February, April

SELECTIONS OF DESSERT PEARS.

FOR SMALL GARDENS.

Petite Marguerite	September
Williams' Bon Chretien	"
Conference	October
Louise Bonne	"
Durondeau	November
Pitmaston Duchess	"
Emile d'Heyst	"
Beurre Superfin	"
Belle Julie	"
Fondante de Thirriot	"
Doyenne du Comice	November, December

As amateurs do not often possess fruit stores, the later varieties are omitted; the most reliable of these are Josephine de Malines, Winter Nelis, and Duchesse de Bordeaux. The above are suitable for pyramids, cordons, and wall trees.

FOR GARDEN CULTURE.

Jargonelle	July
Souvenir du Congrès	September
Williams' Bon Chretien	"
Triomphe de Vienne	"
Fondante d'Automne	"

FOR GARDEN CULTURE.—Continued.

Marguerite Marillat	September
Michaelmas Nelis	End of September
Conference	October
Louise Bonne of Jersey	"
Thompson's	"
Durondeau	October, November
Marie Louise	"
Emile d'Heyst	"
Beurre Superfin	"
Beurre Hardy	"
Beurre Bosc	"
Beurre Diel	"
Doyenne du Comice	November, December
Knights' Monsrarch	November, February
Winter Nelis	"
Charles Ernest	November
Beurre du Buisson	December
Beurre de Jonghe	January, February
Easter Beurre	"
Nouvelle Fulvie	"
Josephine de Malines	December, February
Olivier de Serres	February, March
Beurre Perran	February
Beurre Rance	February, March
Duchesse de Bordeaux	"
Doyenne d'Alençon	"
President Barabe	"

All the above are suitable for cordons, espaliera, or bushes

FOR ORCHARD STANDARDS.

Crawford or Chalk, Lammis, Dr. Jules Guyot, Williams', Hesse, Beurre de Capiannont, Beurre Clairgeau, Beurre Bosc, Beurre Jean Van Geert, Doyenne d'Été, Doyenne Boussoch, Durondeau, Emile d'Heyst, Fertility, Jargonelle, Petite Marguerite, Pitmaston Duchess, and Summer Cras-sne.

BEST MARKET PEARS AS BUSHES ON QUINCE STOCK.

Beurre Hardy, Beurre Superfin, Conference, Doyenne du Comice, Fondante de Thirriot, Louise Bonne, Princess, Souvenir du Congrès, Petite Marguerite, Pitmaston Duchess, Emile d'Heyst, Durondeau, Doyenne Boussoch, Beurre Jean Van Geert, Beurre Clairgeau, Williams' Bon Chretien, and Dr. Jules Guyot.

FRAGRANT CARNATIONS.

REPLYING to T. W. Harris (THE GARDEN, page 281), I think there are many scented Carnations still in cultivation. It is, no doubt, a fact that many of the newer varieties have little or no scent. This especially applies to scarlets and yellows of the smooth-edged type. In fact, there are very few yellows with a powerful perfume. The old Andalusia, pale yellow, with fringed petals, was scented, but this variety seems to have gone out of culture. Miss Audrey Campbell is slightly scented.

We get the most powerful scent in the crimson. The old crimson Clove is perhaps still the most powerfully scented. Uriah Pike has a very pleasant perfume, and Countess of Warwick is also a good free-flowering variety with a pleasant Clove scent. H. J. Jones, a fine crimson, which appears to be a hybrid between the old Clove and the Malmaison type, has a strong scent. All the true Malmaisons are fragrant, and this is perhaps their greatest charm; but there are now many put with this section which I should hardly consider belong to them, and which, if not entirely devoid of scent, have very little. Those which I should recommend are Princess May, deep pink, and a better grower than most; Trumpeter, deep scarlet; Lady Grimston, blush white; and Lord Rosebery; and to these might be added several others. There is no white Carnation to beat Gloire de Nancy for scent; it also has large full flowers and vigorous growth. Mrs. S. Brooks is the best white for pots or winter flowering, and has a pleasant perfume. There are several other good whites. In the scarlets it is more difficult to find scented varieties. Cantab, an old variety of the border section, has survived many others on account of its scent. Many of the pink varieties may be selected for their scent. Mary Morris, an old variety, is still worth growing. Duchess of Fife is perhaps better known now, and is in every way a good Carnation. Of those for pots Mme. Therese Franco (or Mrs. Leopold de Rothschild) is good.

The American varieties are now extensively grown for market, and, in addition to making good stems, all are sweet scented. When these were first introduced there was some prejudice against them on account of the fringed petals; but this has been overcome, and they are now much appreciated, the large flowers, good stems, and pleasant perfume being qualities we all admire. We are continually getting new varieties, but of those which have been well tried Mrs. T. W. Lawson, rose-pink, is one of the best; G. H. Crane is a good scarlet; Harry Fenn, deep crimson; Sybil, pale flesh; Queen Louisa, pure white; Governor Roosevelt, crimson; Norway, another good white, particularly powerful scented; Floriana, pink; Alpine Glow, salmon-pink; Fair Maid, pink, somewhat the same shade as the old favourite Miss Joliffe.

Within the last few years several good varieties of similar habit to the American sorts have been raised by English growers. Names are so numerous and varied that it would be difficult to give a full list, but I think Mr. Harris will be able to find a good many among our newest varieties which are as fragrant as any of the older sorts, but he must not look for these among the large smooth-petalled varieties. Almost all those with the fringed petals are scented. In Messrs. Veitch's collection shown at the Royal Horticultural Hall some weeks ago I noted Prosperity, large fringed flowers, white, a rosy pink shading in centre, as one of the most powerfully scented in the collection. In most of the deep crimsons the scent is good. Many whites will be found to possess the quality, but in scarlets and yellows there are many which have no scent. Some of the dull reds or salmon shades which I noted in Messrs. Outbush and Sons' collection have the desired quality, and I believe most raisers now aim at securing scent as one of the most necessary qualities. The old crimson Clove is one of the best to work from, and Gloire de Nancy, the pure white Clove, is equally good and powerfully scented.

A. HEMSLEY.

If your correspondent T. W. Harris will procure a copy of "Sweet-scented Flowers and Fragrant Leaves," price 3s. 6d., from Messrs. Sampson Low, Marston and Co., Fetter Lane, E.C., he will find all he wants to know about sweet-smelling Carnations.

DONALD McDONALD.

Bexley Heath, Kent.

FRUIT TREES ON LAWNS.

Few trees are more ornamental or give greater beauty in pleasure grounds in both spring and autumn than fruit-bearing trees, yet how few of them are planted for this purpose. Crabs and various Apples give beautiful flowers in spring and richly coloured fruit in autumn, and some Apples give good eating fruits also, as do some of the more recently-raised Crabs. Two varieties that recently received awards of merit, Veitch's Scarlet and Frettingham's Victoria, while very free fruiters and giving fruits of good size and colour, are very pleasant eating sorts. For colour alone the Siberian, John Downie, and especially the Dartmouth Crabs are very effective. I saw recently in front of the manager's house at Veitch's Langley nursery a tree of medium size laden with bright-coloured fruit, Cratægus orientalis, that formed a singularly beautiful object. But of larger fruits there are among Apples some that give brilliant colour. Those who have been privileged, as I have been recently, to look through some of our great fruit nurseries, and note the rich colouring found here and there, must have felt that such trees merited positions as lawn specimens. Six specially rich coloured varieties are Duchess Favourite,

Worcester Pea main, Colonel Vaughan, Baumann's Red Requette, Jolly Miller, and Crimson Queen-ing. To this list may be added Gascoyne's Scarlet if a larger fruiting variety is preferred. Colour would in many cases be better on lawns than on rich cultivated soil. Apart from the fruit, Apple or Crab bloom is most beautiful. A. D.

NURSERY GARDENS.

MESSRS. S. S. MARSHALL, LIMITED,
BARNHAM.

FRUIT trees form the chief feature in the Sussex nurseries of Messrs. S. S. Marshall, Limited. They are grown upon exposed land near Barnham Junction, on the London, Brighton, and South-Coast Railway, and about two miles from Bognor. Altogether some eighty acres are devoted to the culture of nursery stock, and the greater portion is occupied by fruit trees. To give some idea of the quantities, we may mention that some fifteen to

TWENTY THOUSAND TRAINED FRUIT TREES

are grown annually, as well as a very large stock of Apples, including some 50,000 two year old trees, quantities of Pear trees on the Quince stock, some 10,000 standard Cherries, and other fruits in proportion to their importance. The fruit trees throughout the nursery are distinguished by their sturdiness and vigour. After such a splendid season as we have had one would of course expect them to be looking well, but it is hardly too much to say that they could not look better; both soil and climate apparently suit them well. Trained trees are particularly good, as, for instance, the cordon Pear trees shown in one of our illustrations, and the fan-shaped and standard Cherry trees. The young specimen Pear tree that we also show is but one of many hundred similar trees. Trained Peach and Nectarine trees are largely represented by excellent stock, and we may say the same of the bush Apples; the latter are largely raised for market growers.

ROSES IN NOVEMBER.

One of the prettiest sights in the nursery a few days ago was a row of China Roses, flowering quite freely, as may be seen from the photograph we have reproduced (see page 303.) It is the old pink China, and needs no word of recommendation, for it goes without saying that a Rose that will bloom all the summer and still be beautiful in November should be in every garden.

Although Roses are not such an important item in the Barnham nurseries as fruit trees, still they are largely grown, and the stock is being rapidly increased owing to the great demand. We saw some 30,000 to 40,000 dwarfs and 8,000 standards, all the best of the newer sorts, as well as the good older varieties being included.

Among the trees and shrubs grown in these nurseries we were most impressed with the splendid specimens of

CUPRESSUS MACROCARPA,

15 feet to 18 feet high, pyramids of bright green. Numbers of these are planted in the shrubbery, on either side the chief drive through the nursery, and they make a very handsome addition to it. Messrs. Marshall make a speciality of trees for sea-side planting, and Cupressus macrocarpa is one of the best of them. It is a tree that requires careful treatment before it is finally planted. It is transplanted in the spring and lifted again in the autumn, so that the long fleshy roots may not go deeply in the soil. The yellow variety (C. m. lutea), the most beautiful of all golden conifers, is well grown here too. Like the type, it thrives best by the sea. Cupressus macrocarpa and its yellow variety are chiefly grown in pots, because of the difficulty in transplanting them. Other conifers here worth drawing attention to are Thuya Lobbi, Cupressus lawsoniana, C. l. erecta viridis, C. l. Frazeri, and C. l. Allamii.

Among other trees for seaside planting we might mention evergreen Oaks, Escalloniae, and

HARDY FUCHSIAS.

Messrs. Marshall have an exceptionally fine lot of the latter, Riccartoni and gracilis chiefly being grown. At the time of our visit these hardy Fuchsias were masses of colour. They certainly deserve to be extensively planted.

THE MYROBALAN PLUM

is another plant we might well call attention to, and especially with regard to its value as a hedge plant. It grows more quickly than the Privet or Quick, although it does not make such a dense hedge as the latter. It might often be planted with advantage instead of the Privet. There are nearly 100,000 plants of this in the Barnham nurseries. There are large quantities also of Privet, Quick, Euonymus, green and gold, and other hedge plants. We might further mention as receiving special attention Choisy ternata, Olearias, particularly O. Gunnii, and Cotoneaster, especially microphylla and horizontalis, both of which make handsome bushes. It is interesting to learn that

THE SHASTA DAISY

has much improved upon further acquaintance. We were told that it had been magnificent this



A BUSH PEAR TREE IN THE BARNHAM NURSERIES.

year, and it was still in bloom a few days ago. Herbaceous plants, such as Phloxes, Asters, and others, are cultivated in quantities, and the stock of Roses, Clematises, Honeysuckles, and Jasmines in pots is also considerable. We were surprised to see Solanum jasminoides doing so well out of doors, both as a bush and clambering over a wooden trellis. The stem carried numerous bunches of its beautiful white flowers, and there were many buds that would open were frost to keep away.

AUTUMN ROSES AT BATH.

A FEW weeks ago the Roses were making a beautiful display in the nursery of Messrs. Cooling and Sons at Bath; the sight of those that were still in blossom made one regret not having been among them in Rose time proper. The huge specimen of Rosa polyantha grandiflora must have been a grand sight when in flower, and the weeping standard of wichuraiana Rosea have been worth

going far to see. Even at the time of our visit the latter still were in flower. The day cannot be far distant when these delightful Roses will be extensively planted in every garden; they are most suitable for training over arches. The French hybridists are chiefly responsible for the best varieties, such as Alberic Barbier, Gardenia, and René André, though Dorothy Perkins is a notable exception. Most of these are evergreen, and even when not in flower are very pleasing plants to have in the garden. We saw the old Macartney Rose very beautiful on a low wall. It does particularly well in the neighbourhood of Bath. The large, single, white flower, the bud enclosed within curious grey-green sepals, and the fruit were all to be seen on the plant together. Those who want a reliable

COMPANION ROSE TO CRIMSON RAMBLER

should, Messrs. Cooling say, plant Mme. D'Arblay. It bears double white flowers which appear at the same time. This lovely climbing Musk Rose may be trained up a pillar or used as a climber in many other positions. Two other good climbers that are always in flower, more or less, are Alistair Stella Gray and Mme. Alfred Carrière. No garden where climbing Roses are planted should be without them. That famous Rose G. Nabonnand was still finely in bloom when we were at Bath, and it was expected to continue flowering until Christmas.

MILDEW NEVER ATTACKS THIS ROSE,

which is a point greatly in its favour; at least this is the experience of Messrs. Cooling. Not the least attractive feature is the lovely bronze-red tint of the shoots. As might be expected the old Monthly Roses, pink and crimson, made one of the prettiest displays in the nursery. Other good autumn flowering varieties that one could not fail to notice were Ards Rover, a climber with rich crimson blossoms, and standards of Ulrich Brunner, Tom Wood, Frau Karl Druschki, and Maréchal Niel. The latter were very beautiful.

COOLING'S CRIMSON SINGLE BEDDER

is a Rose worth planting, and so is climbing Mrs. W. J. Grant, a most profuse flowerer. Rosa Brunoni himalaica is a lovely Rose (introduced by Messrs. Cooling) with large bunches of single flowers. For an abundance of blossoms Grüss au Teplitz is not to be beaten. Among the best

ROSES OF RECENT INTRODUCTION

are Bellefleur, a single scarlet, that makes an excellent pillar and hedge Rose, very free; Ards Pillar, rich velvety crimson, a splendid pillar Rose; La Tosca (H.T.), soft pink, tinted rosy white and yellow, very free; Senateur Belle (H.T.), pale salmon with deep yellow centre; Yvonne des Buffards (Tea), pale rose, carmine at edges of petals, centre shaded with amber;

COOLING'S YELLOW NOISSETTE,

a beautiful new yellow climbing Rose, the flowers produced in clusters, very beautiful in the bud; and Helene Welter (H.T.), bright rose, buds long, very free. Such are a few of the 100,000 Rose trees grown in the Bath nurseries of Messrs. Cooling.

They cultivate fruit trees largely also. Cherries and Apples are particularly good. One of the favourite early dessert Apples, and at the same time one of the most handsome, is Beauty of Bath, which originated in Messrs. Cooling's nurseries. The standard Pears are a feature here. Messrs. Cooling use a special stock which makes a clean straight stem, and without this a standard tree loses much of its attractiveness and value.

APPLE ISIDORE DUPONT.

THIS Apple was obtained from some chance seedlings by M. Arrou Pellerin of Bagnolet, France. Up to the present time Emperor Alexander has been most generally cultivated as a September dessert Apple. It owes this privilege, however, much more to its beauty than to its quality. Isidore Dupont, although it ripens a few days later, appears to us to be certainly destined to take the place of the other. It is of superior quality, of great delicacy of flavour, as large as Calville

Blanche, and of remarkable colouring. From the shape of its ridged fruit this Apple Isidore Dupont should be classed among the Calville group. It is fertile, and has, as yet, only been grown as an espalier. Apple Isidore Dupont was placed before the fruit committee for fruit tree cultivation de la Société d'Horticulture de France, at the meeting on October 8, 1903, and was very favourably commented upon. At the exhibition in November of the same year the jury awarded it the silver medal (the highest award) for new fruits shown by the grower.

J. M. BUISSON, in *La Revue Horticole*.

CORRESPONDENCE.

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

THE HERBACEOUS BORDER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have just seen an article in your issue of the 8th ult. by Augusta de Lacy Lacy on the making of a herbaceous border, which I cannot help thinking might dishearten and mislead a beginner. While recognising that there is much useful information in the article, I venture, nevertheless, in the friendliest possible spirit, to draw attention to a few of what I consider are mistakes. In the first place, it is not in the least necessary to take the soil out 4 feet, and put 1 foot rubble, covered with a layer of ashes, at the bottom. I do not deny that the deeper the soil is the better, and of course the ground must be drained, but this will probably have been done when the garden was made. Then the idea of being careful only to obtain manure from a farmer who farms "high" is rather misleading. Any ordinary farmyard manure is quite good enough, and not too much of it. A gardener I once had was ingenious enough to even kill most of my Michaelmas Daisies, to say nothing of my choicer plants, by planting them in nearly solid farmyard manure.

Now as to the width of the border, the writer suggests 6 feet to 7 feet, which of course is not nearly wide enough; 12 feet wide is the very least a border should be if anything like a succession of flowers is to be kept up from spring to autumn. Then it is proposed to plant Lilacs, Laburnums, Weigelas, Syringas, and, forsooth, a few Japanese Maples at the back. Of course, none of these should be in a border only 6 feet to 7 feet wide, though they would be quite allowable in a border, say, 16 feet to 18 feet wide; but even then choicer shrubs like Japanese Maples must not be planted among hungry shrubs and behind plants which grow three times as high. In front of the shrubs it is proposed to plant Phloxes, which would be entirely hidden by the Delphiniums, Lupins, and Galegas, which are to be planted in front of them. Few of the choicer Phloxes grow more than 3 feet to 3 feet 6 inches high nowadays, and should be in the same row as the Pæonies, Erigeron speciosum, Monarda, Potentillas, and Oriental Poppies—always supposing you will admit these showy but untidy and hungry Poppies into your border. In any case only have the var. bracteatum, which is far the finest. Potentillas and Geums, which are pronounced unsatisfactory and straggling, are amongst the most showy of the summer-blooming herbaceous plants. Potentillas certainly require careful tying up, and this is best done with dead Larch branches inserted round and over the plants when they have grown about 1 foot high. I cannot agree that the old-fashioned Columbines are more effective in a border than the beautiful spurred Aquilegias, though the double var. Munstead White is well worth growing; the others are hardly worth the room they take, and they sow themselves everywhere. Several Campanulas are placed in the second row with Achilleas and Galegas; but how is the unfortunate beginner to discriminate among the scores of Campanulas, and to know that about the only variety he ought to associate with these two weedy subjects is Campanula macrantha in its blue and white forms. To talk of Campanulas, as also

of Spiræas, Pæonies, and Iris, is altogether too hazy for a beginner, who should be told, for instance, that the second and third rows should contain, say, Campanula persicifolia, the var. grandiflora alba and Moerbeimi, C. grandis, C. lactiflora, C. glomerata dahurica (rather a weed), and the Canterbury Bells. Personally, I am thinking of banishing all these Campanulas from my summer borders, as in a hot summer the flowers hardly last a week; in fact, this year the Canterbury Bells were over before they were out. All the ordinary Campanulas grow best in shade, and the best group of C. grandis I ever saw was growing under the dense shade of a Cedar tree.

To revert to one or two other plants named, I should say do not plant Heuchera sanguinea, it is too uncertain except in a dry year; far better grow H. brizoides gracillima, which was out with me this year for quite three months. Next year I am going to promote it to a bed in the flower garden, and mix it with Linum narbonense and Stipa pinata, which I think might be a good combination. Eryngium amethystinum is a rock plant, and not very easy to get true. E. oliverianum is probably the plant meant. Liliun longiflorum will bloom for one year, and its non-appearance next might disappoint the beginner. Do not plant Ribbon Grass; if you want a variegated grass, far better try Arundo Donax variegata, which is much handsomer and quite hardy in the South and Midlands. Elymus arenarius is much prettier than Ribbon Grass, and no more of a weed. By all means have a few Foxgloves, but be careful to cut off the seed heads, and remember they are wild flowers, and will sow themselves all over the garden. After enumerating a certain number of flowers, the writer says: "You have now collected every available plant to give you colour from April to October," whereas you have really only touched the fringe. Where, for instance, are the Lilies, Aletroemerias, Kniphofias, Eremuri, Ostrowekya, Clematis erecta, Thalictrums, Rockets, Mulleins, Echinops, Linums, Sidalcea Listeri, Romneya Coulteri, Fuchsias, Statice, &c. Every decent border should contain these, and at least the following Lilies:—Umbellatum, erectum elegans, or thunbergianum, szovitzianum, testaceum, croceum, pardalinum, candidum, tigrinum, and Martagon, if you like the colour of the last. All these, except possibly candidum, can be grown in any border.

Personally, without going as far as Bacon, who would have a garden for every month of the year, I am not in favour of "three-season borders," as it is hardly possible to have one border really bright from March to October. I have one border for spring-autumn, one for spring-summer, and one for summer-autumn. In conclusion, I would say

only plant the best of everything, there are plenty of good things nowadays without growing weeds. Shun like the plague such things as Polygonums, French Willow (Epilobium), Helianthus Miss Mellish, Winter Heliotrope, Campaoula rapunculoides, &c., and if you will have Golden Rod, Achilleas, Galegas, Pyrethrum uliginosum, &c., use them sparingly, and keep your eye on them.

M.

TROPÆOLUM SPECIOSUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In support of "A. D.'s" advice to owners of gardens to persevere in the cultivation of this beautiful climber in whatever position or aspect the garden happens to be, I may, perhaps, say that I have seen the plant in splendid condition and flowering freely both in South Devon as well as in the more northern part of the county. Nicholson in his "Dictionary of Gardening" says that it "requires a constantly moist and shaded position in a peat border, and is impatient of disturbance at the roots." Under such conditions as these I saw the plant in great luxuriance about the middle of August clambering over bushes and occupying a large space in the nurseries of Messrs. R. Veitch and Son at Exminster, having for its close companion Mutisia decurrens, which has been in its present position some five years, and was at the time of my visit just finishing a successful flowering season. In close proximity was also a fine clump of Kniphofia northiana, bearing the remains of several large flower-spikes. This plant had also



CORDON FEAR TREES IN THE BARNHAM NURSERIES.

been in its present place about five years. In contradistinction to the damp, shady position the *Tropeolum* occupies at Exminster, I saw it about a year ago growing well in an open, sunny border on a terrace at Killerton, the seat of Sir Thomas Acland, a few miles to the north-east of Exeter, where it formed graceful festoons of its brilliant flowers among dwarf shrubs. In my own garden I planted in the late spring a few of the long, creeping rhizomes in a position facing east. The plants have already grown to a height of some 10 feet or 12 feet, and produced several clusters of flowers.

JOHN R. JACKSON.

Claremont, Lymptone, near Exmouth.

A FIG TREE IN SARK.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In the grounds of La Seigneurie, Sark, may be seen a Fig tree of great age, trained in the peculiar manner shown in the illustration. It is said to be no less than three hundred years old, and the thickness of the trunk quite warrants this estimate. It is trained over a large flat rectangular framework of wood, supported by stout uprights, giving the general effect of a huge table about 5 feet high. At the time of my visit (August) the tree was in full bearing, and beneath it was a grand bed of Mushrooms. I am indebted to the Seigneur of the Island, Mr. Collings, for permitting the photograph to be taken.

W.

POTATOES TO EAT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was very pleased to read in your issue of the 22nd ult. the timely remarks of the Rev. G. H. Engleheart upon Potatoes, and also upon the National Potato Society. The first show of this society at the Crystal Palace has, I think, taught us that some better method of judging Potatoes should be adopted, and that at once. In such a representative society, in my opinion, the Potato should no longer be treated as a purely exhibition plant—that is to say, the staging of tubers alone is of no practical value to anybody. At the exhibition, no doubt, the tubers, with their many coloured labels denoting their name and origin, made a very brave show indeed, but this is not what is wanted. Is it not practicable to exhibit a growing plant, or plants, of any variety, a dishful of its produce as lifted from the soil, and a few tubers boiled? If this were done visitors to the show would have some opportunity of noting habit of growth, productiveness, the general appearance of the tubers, and of testing the cooking qualities. The judges, too, would have some rational method of assisting them in their awards, and much more would therefore be done to prevent the great difference of opinion which invariably results from the present system of judging Potatoes at exhibitions. This is all the more applicable to seedling varieties submitted for the first time to such an institution as the National Potato Society. There was a prize offered at the Crystal Palace show for the best collection of seedling varieties not in commerce. Now, the tubers which were awarded the first prize in this class were, so far as tubers are concerned, all that the most fastidious judge could desire, but what of the other and more essential points—flavour and quality, productiveness, and disease-resisting ability? It is impossible under the present system of granting awards for any judge to form any idea of the most necessary points in Potatoes shown in such a class as this, and in such an important show as that of the National Potato Society. The pedigree, of course, is usually given, but experience has taught us that this is by no means an index to the good points of a Potato.

The fact is the aim of growers is productiveness; quality is apparently of no consideration. If a raiser can demonstrate that his latest introduction is a phenomenon in the way of a heavy cropper, as a general rule, he has satisfied himself, and also the demands of growers, and there, usually, his mission ends. What is the use of growing a variety that will yield, say, 20 tons to the acre, or 170 tubers to the plant, if quality and flavour in that particular variety are con-

spicuous by their absence? Are growers planting Potatoes to feed cattle, and not very discriminating cattle, as Mr. Engleheart aptly puts it, or are they planting them for human food?

Every year it is becoming increasingly difficult to see a well flavoured Potato of good quality upon the table, and I hope that the very able management of the National Potato Society will see to it that in future no new Potato submitted to them will be granted the hall-mark of their society until it has been tested and cooked by them, and is found to contain everything that is necessary to make a good Potato, quality being the first consideration, productiveness the second. Perhaps many of the seedlings submitted to the society were perfect in the above respects, but how could the judges or visitors to the show ascertain this? Heavy cropping qualities and shape of tuber alone are of little value to the consumer, who, in the end, must be most seriously considered, and they must have quality; failing this, it most certainly means a curtailed demand. If Potatoes are not good nowadays there are other things which can and are taking their place upon the dinner-tables of the country.

While on the subject of judging, I was sorry to notice the society at the Crystal Palace show

better Potatoes on their humble tables, I believe, than the great majority of their English cousins. Why should this be?

Inveresk, Midlothian. GEORGE M. TAYLOR.

POTATO NORTHERN STAR.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—No doubt, as "G. H. H." says (page 280), that it is disappointing to have an idol shattered, just as it is to have a pet theory upset, but it seems now that Northern Star, the idol of the past two or three seasons, has come into more general culture and the test of quality proved, there seems nothing but disappointment to record. I am not sure that many will have expected very much less, for quality, which after all is the most important point in Potato culture, and use has hitherto been unconsidered. I am quite convinced that when Northern Star has to face the cooking test it will be thrown out by the majority of growers, and the possibility is Eldorado will meet the same fate, for, as Mr. Engleheart says, no one can venture yet to try even one tuber. Now that the "Stars" have come within a planting price for the million, it will probably be abandoned by those who have gambled in money values, and attention



A FIG TREE 300 YEARS OLD IN SARK.

encouraging awards to tubers of great size, quite unfit for ordinary and general cooking purposes. This, I believe, to be a fatal error, and I challenged an award in question at the evening meeting of the society, but I was told by one of the gentlemen who judged this particular lot of Potatoes that I wanted Potatoes judged from an horticultural, and not from an agricultural standard, what they wanted was weight. This is, of course, the new doctrine, and I regret to find the National Potato Society adopting it. Your correspondent also draws attention to the prejudice against yellow-coloured Potatoes. There are many yellow fleshed varieties of great excellence, and I cannot imagine why market growers do not push these more than they do. I maintain that colour is of no consideration if the quality is there, and if the Potato looks white and mealy for the table. I could put on the English market several varieties of coloured Potatoes, both round and kidney shapes, of delightful flavour, something that would be a revelation to present-day consumers, but the colour of the skin debars this. The crofters and cottars in Scotland have

will turn on future novelty with the same aspect in view. Many growers who have been so careful to provide by propagation the largest possible number of plants from their purchases and carefully noted the weight of the actual yield, perhaps have not tried some of the older sorts which have been long under cultivation and given them the same chance of competing. I am quite convinced that almost any older main crop sort would have done as well as Northern Star under the same conditions, and many a good deal better. Disease resistance is nothing but a myth, for from so many come reports of infection. In our case there was more disease in Northern Star than in Snowdrop. Records of varying weights are given as from 40lb. to 160lb. yield from a single pound of seed, some pursuing a natural system of propagation, others by excessive propagation under glass. Out of our crop of 50lb. quite half were no better than pig food, and would have been used as such were they without the element of novelty, and even admitting this there is a doubt as to whether further trial will be given it. Potatoes are grown for table use, not for pigs and fowls, and if there is nothing

better than a lump of soap-like Potato to partake of when cooked, who will continue to grow, sell, or eat them? It is quite true that soil has much influence on the texture and flavour of Potatoes, and not every garden can find the conditions essential to high quality. Not only does Northern Star offend in this important matter, but others of recent origin as well, Evergood in particular being absolutely uneatable and soap-like.

W. STRUGNELL.

Rood Ashton Gardens, Trowbridge.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I agree with your correspondent regarding Northern Star Potatoes. I have tried the variety myself this season, and I have found them very much as he describes. I am far from thinking that it is the perfect Potato we have been led to believe it is. Of course, I have grown it under ordinary culture, similar to my other sorts, and the result was a superabundance of tubers, but a great number of them were seed size and "chats." The land was in good condition and received a supply of farmyard and also a dressing of artificial manure. Other varieties which I grew alongside produced good crops, namely, Evergood, Royal Kidney, and The Factor. The last mentioned I have found a splendid variety, giving well-shaped Potatoes of good size, with practically no small ones, and very few of even seed size. A number of shaws weighed from 5½ lb. to 6½ lb., and one I had weighed 7 lb. 2oz., consisting of eighteen tubers, but the best recommendation of this The Factor Potato, lies in the fact that it is a splendid cooker, and of good flavour, equal to any of the old favourites. Personally I should consider it more likely to become a standard main crop than the Northern Star.

H. E. R.

CHRYSANTHEMUMS AT SWANLEY.

AS each succeeding season comes round we always wend our way to Messrs. Henry Cannell and Sons of Swanley with the full assurance that if there is to be anything new and meritorious in new Chrysanthemums from any part of the world where the flower is known and grown we are certain to see it in their collection. This year forms no exception to the rule, for Messrs. Cannell have a thoroughly cosmopolitan lot of flowers that have been raised by most of the eminent seedling growers, both foreign and colonial, to say nothing of home-raised products. The large show house, a span 165 feet long by 28 feet wide, is just now at its best. The blooms, grown far away in the pure air and clear light of the county of Kent, are clean and bright, and form a most attractive display.

Dealing first with Continental novelties, those of M. Ernest Calvat unquestionably occupy the front rank in spite of threatened competition, which made itself manifest on the part of one of his fellow countrymen last year. The new grower's products, although included in Messrs. Cannell's collection, are somewhat late. M. Calvat's best are Souvenir de père Calvat, a large Japanese, the tips of the florets curly, colour pure white, tinted in the centre, outer florets lilac-purple; Jean Calvat, a Japanese with very long florets, deep golden-yellow, with shading of chestnut-red; Shakers, quite a novelty of this season, a large crimson and gold Japanese; F. S. Vallis, still one of the loveliest flowers in the pure pale yellow group; Nivôse, a very perfect form of Japanese of the Carnot type, but better habit, florets long and drooping, colour a lovely shade of pure bright yellow. Chrysanthémiste Montigny is one of the present year's set; it is immense in size, a very broad flower, florets grooved and twisted, colour pure pale primrose-yellow. President Vigor is a large-sized Japanese with great length of floret, rosy pink, with silvery reverse. Mlle. E. Chabanne is another typical Calvat bloom, deep in build and of fine globular form, colour pale rosy pink. Mlle. Marthe Morel, like the preceding, is one of the 1903 set, a Japanese with very fine florets of good size, and pure white in colour. Sapho belongs to

the current year's set, a very large Japanese with broad florets, colour rosy plum, with reverse of silver. Very pure white is found in Mlle. Anna Debono, which is one of the newest seedlings raised by this eminent grower.

There are seedlings from several other French raisers, but the only one of any serious importance as shown by the Swanley collection is our old friend M. Aug. Nonin, who has already supplied the English grower with a fair proportion of good exhibition sorts. But M. Nonin does not limit himself to the production of one class of flower only, as we shall show presently. He has sent out recently in the large flowering section Josephine Roux, a fine Japanese of good form, with long, drooping florets, colour purple-amaranth, reverse silvery; Mme. Marguerite Guiot, not over large, but a very full flower, pure paper-white in colour, and an October-blooming variety. Amateur Consuel is also one of M. Nonin's, a very close, compact bloom of excellent form, having rather narrow florets, colour a fine shade of velvety carmine-amaranth. Chas. Schwartz is from the same source, a deep rich-coloured crimson, but, in spite of its broad florets, we do not think it will do more than become a useful variety for decorative groups where richness of colour is desired. M. Nonin is a capable exponent of the art of arranging effective and artistic groups, and his exhibits at the Paris shows have always been marked by the greatest taste. We are not, therefore, surprised to find him contributing a new collection of purely decorative varieties, for which there is a considerable demand in this country. Some of these were in fine form when we were at Messrs. Cannell's, all of them being of good habit, free flowering, and most useful novelties where general effect is required. We specially note Le Gracieux, silvery pearly pink; Acajou, deep red; Innocence, a pretty white; Jason, lemon-yellow; Etoile Blanche, pure paper-white; Primevère, rather above the average in size, soft pale yellow, shaded buff; Etoile d'Or, bright golden-yellow; and Le Pactole, golden-yellow, shaded bronze.

Other varieties of equal merit and from various sources, including Australia, are Jessie, a nice Japanese, with long drooping florets, colour deep yellow shaded crushed strawberry; Mrs. W. Higgin, a big globular bloom with grooved florets twisted and intermingling, colour pure white; Byron, a charming flower with very narrow florets, close in build, a pretty shade of lilac-mauve; Mrs. J. Hadaway, the sport from Miss Mildred Ware; and several others, such as Beatrice May, soft blush; Major Powell Cotton, deep golden-yellow, slightly suffused bronze; Lady Hopetoun, silvery lilac-pink; Mrs. J. Dunn, the new white; Lady Conyers, &c., might also be deemed worthy of special mention.

Varieties of highly coloured shades are numerous and uniformly good. Thus, Alfriston, a fine Japanese with medium-sized florets, is strongly in evidence; its rich bright dazzling crimson and old gold reverse making it one of the most effective of its kind. Mrs. H. A. Allan is of good size, the colour purple-amaranth, with reverse silvery. Red Barkley is another fine addition to the crimson.

In yellows most of the well-known recent additions are included, one of the finest being unquestionably Mrs. Harry Emmerton, the size of which strongly recommends it as eminently suitable for the show-board. Bessie Godfrey, Miss Dorothy Webster, Mrs. W. Duckham, A. L. Stevens, Merstham Yellow, and Mrs. T. W. Pockett are all well represented in many fine examples.

AT REGENT'S PARK.

It is many years since these gardens were so bright in autumn as they are at the present time. Mr. E. F. Hawes, who has charge of the practical side of gardening here, has taken considerable pains to make the gardens and conservatories bright with Chrysanthemums. Big blooms are somewhat tabooed. Of the early-flowering Chrysanthemums 2,500 plants are cultivated, and in one large border there are quite 1,600 plants full of flowers. This is quite a new feature for displays in the open border in the heart of the metropolis, and proves that the Chrysanthemum is excellent

for town gardens. It may be well to mention a few of the more prominent Japanese sorts that do so well in this town garden. Beautiful, indeed, were the plants of Vice-President Hardy. This is a pretty free-flowering crimson and gold flower, developing charming sprays of dainty blossoms. White Quintus is a pure white that appears to do well. Orange Child is an old sort of an orange-yellow colour, and is a plant with a compact habit. M. Dupuis is another orange-coloured sort, making lovely sprays, and the habit is also good. Mme. Marie Masse, lilac-mauve, and its sports Crimson Masse, chestnut; Ralph Curtis, creamy-white; Rabbie Burns, cerise-pink; and Horace Martin, a glorious yellow, are a quintet for early flowering that cannot be beaten. The plants are very branching, robust, and free. Mme. Casimer Perier, creamy white, tinted pink; and its recent sport Mrs. A. Willis, yellow, shaded and suffused red, are two excellent sorts for the outdoor garden, being free-flowering and most effective. Ivy Stark, orange yellow; Harvest Home, crimson and golden yellow; and Francois Veillermet, lilac-pink, are three popular sorts that never fail to do well outdoors, and on the occasion of our visit they were largely in evidence. As a matter of fact all the best Japanese and Pompon varieties are extensively grown. Novelties of the present season are not forgotten, and a big stock is already being worked up for next year's display. No less than four thousand decorative Chrysanthemums are grown in pots, and these comprise Japanese, single-flowered and other types of the Golden Flower. We were pleased to see a beautiful group of the variety Miss Mary Anderson. This and its yellow sport, Miss Annie Holden, are not possible to beat; they are free-flowering, and the plants are of excellent habit. Ladysmith is another very fine single, the colour is a pleasing shade of rose, and contrasted with the yellow disc is most effective. The plants are grown quite naturally, and make handsome bushes. One instance is particularly worthy of mention. A large stone vase, some 8 feet, more or less, in diameter, was planted with the last-mentioned variety, so that its free growth could be amply displayed. Overhanging the sides were beautiful fresh green growths of Asparagus Sprengeri. D. B. C.

AT BROCKWELL PARK.

THE little collection here is housed in the same place as heretofore. We had almost hoped that with all the advantages this southern park enjoys a new and suitable glass structure might have been provided, for the purpose of giving to the residents this year a floral display such as is to be found at the other London County Council parks. Within the narrow limits at his disposal, however, Mr. Curle makes the best use of the place that he possibly can. Most of the best of the Japanese varieties are grown, and among them are some capital blooms of Mme. Paolo Radaelli, N.C.S. Jubilee, Mrs. Coombes, Mme. C. Roissard, and Mrs. Bryant in the pink and rosy tints. Some good yellow and bronzes are Miss Mildred Ware Earl of Arran, Sensation, Mrs. A. H. Hall, Soleil d'Octobre, Kimberley, George Lawrence, and Admiral Avellan; beautiful blooms of Australie, Mrs. G. Mileham, Millicent Richardson, and Marquis Visconti Venosta in the purples are to be seen; while other excellent Japanese of varying tones are here and there represented by sorts like Mrs. Henry Weeks, a noble white of grand dimensions, big and solid in build; W. R. Church, Mme. Gustave Henry, Mrs. J. C. Cleve, the peculiar straw-coloured sport from Australie, Mrs. J. Shrimpton chestnut and gold, Surprise, and John Shrimpton; Descartes in the Anemone section is a fine flower of rich, deep vinous crimson, and in the hairy section the golden buff-coloured Hairy Wonder is at once conspicuous and of considerable decorative effect. The incurved section is represented by two highly coloured, well-known varieties to the visitors at the London parks, viz., Baron Hirsch, a fine shade of deep, rich golden chestnut; and Mr. R. Babuant, a deeply built rosy purple flower of excellent form. Although the collection is small, and the conservatory ill-adapted in several ways for the purpose, an excellent display is made and the visitors are numerous.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THERE was a smaller display than usual at the meeting of the Royal Horticultural Society on Tuesday last. Orchids were the chief feature, although other plants and flowers were well shown too. A gold medal was given to the collection of Orchids shown by Jeremiah Colman, Esq., Gatton Park, Reigate. From Lord Aldenham's gardens at Elstree an extensive exhibit of cut shrubs was made; they served to draw attention to the subject of the lecture given in the afternoon by the Hon. Vicary Gibbs, viz., "Planting Woods for Winter Effect."

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, de B. Crawshaw, Norman C. Cookson, J. Wilson Potter, W. Boxall, W. H. Young, F. W. Ashton, A. A. McBean, H. T. Pitt, H. A. Tracy, G. F. Moore, W. H. White, J. Charlesworth, H. Ballantine, Richard G. Thwaites, James Douglas, Francis Wellesley, Walter Cobb, and F. Sander.

The Orchids from Jeremiah Colman, Esq., Gatton Park, Reigate (gardener, Mr. W. P. Bound), filled one side of a long table. They were attractively arranged, plenty of greenery being interspersed. *Cattleya labiata* was, of course, conspicuous. There was a small group of it at each end of the table; *Lelia praeiens* in several varieties, and very beautiful they were. *L. p. George Prince of Wales* and *L. p. The Queen* were two of the best. *Lelia praeiens* Gatton Park variety is unique in its colouring; the sepals and petals are palest lilac-rose, the lip deep slaty blue, and with the yellow throat has a charming effect. Among other plants in this extensive exhibit we might mention *Cattleya aurea*, bearing splendid flowers; *Epidendrum ciliolare*, with its quaint greenish white blooms; *Cattleya bowringiana* lilacina, *C. labiata alba*, *C. l. Master J. Colman*, *C. l. coerulea*, *C. Minerva lilacina*, *L.-C. colmaniana*, and other *Cattleyas*; *Cyperorchis affine*, with racemes of yellow tubular flowers; some very good hybrid *Cypripediums*, *Miltonia Regnelli* Gatton Park variety, and *Cymbidium tracyanum* were all well represented. Gold medal.

Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, had many beautiful things in their group of Orchids. *Laelio-Cattleya callistoglossa* is a very handsome flower with pale rose-lilac sepals and petals and rich purple lip, and was well shown. *Vanda coerulea*, too, was very beautiful. *Cattleya Mantinii*, *Brasso-Cattleya Mossie-digbyana*, *Cattleya Peetersii* (*labiata* × *hardyana*), *C. Germania* (*schofieldiana* × *hardyana*), *Laelio-Cattleya Sunray* (*L. cinnabarina* × *C. superba*), *C. Octave Doin* (*Mendelii* × *aurea*), and *L.-C. luminosa* (*L. tenebrosa* × *C. aurea*) were very fine among the hybrids. *Cattleya Doin* is particularly beautiful, the flowers of perfect form, the broad white petals tinged at the edges with lilac; the lip is purple at the base, with two rich yellow lobes above; the throat has a yellow ground, heavily lined with crimson-brown. Silver-gilt Flora medal.

The group of Orchids from J. Bradshaw, Esq., The Grange, Southgate (gardener, Mr. G. Whitelegge), included some very good *Cattleya Mantinii* (*bowringiana* × *aurea*), *Cymbidium tracyanum*, *Cattleya labiata*, and some white varieties of the latter. These comprised *C. l. Penelope*, *C. l. amesiana*, *C. l. R. I. Measures*, *C. l. G. G. Whitelegge*, and *C. l. Ariadne*. *Lycaste Skinneri alba*, *Laelio-Cattleya luminosa*, and *L.-C. Ingramii* were also shown in this group. Silver-gilt Flora medal.

Cypripediums and *Cattleyas* predominated in the group shown by Messrs. Sander and Son, St. Albans. Of the former *C. mananthum superbum*, *C. Masterso-callosum*, *C. Swinburni magnificum*, *C. insigne Olivine*, *C. arthurianum*, *C. a. var. pulchellum Harrisii*, *C. callosum Sanderæ*, and *C. Stanley Rogerson* (*Charlesworthii* and *callosum*). *Cattleyas* comprised *C. labiata*, *C. Mantinii*, *C. Johnsoniana*, and others. A splendid plant of *Cymbidium tracyanum*, *Zygopetalum Klubochozum superbum* (with white crimson-tipped petals and sepals), *Miltonia lubbersiana*, *Cynoches chlorochilon* and *Calanthe ocnata gigantea* were other interesting plants in this exhibit. Silver Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, exhibited a splendid plant of *Cattleya labiata autumnalis*, carrying some twenty-three fine flowers in their group of Orchids. Of special interest were *C. labiata* (white var.), *C. Parthenia Prince of Wales* and *Brasso-Lelia Mrs. Gratrix*. *Warszewiczella walesiana* was well shown, and *Cypripedium Standard* (a good hybrid between *Charlesworthii* and *leeanum*), *Vanda kimbaliiana* and *Ionopsis paniculata*, too, were very attractive. Silver Banksian medal.

Messrs. Stanley Ashton and Co., Southgate, N., exhibited a group of Orchids in variety that included some excellent *Cattleya labiata autumnalis*. *C. Mantinii inversa* was well shown, and so was *C. Loddigesii*. *Miltonia Cogniauxia*, said to be a natural hybrid between *M. moreliana* and *M. Regnelli* has purplish red sepals and petals, and a rose-purple lip marked with lines of a deeper shade. Among *Cypripediums* *C. insigne Ballic* and *C. l. youngianum* were noticeable. Silver Banksian medal.

Messrs. J. and A. McBean, Cooksbridge, Sussex, showed some splendid *Cattleya Mantinii*, *Odontoglossum crispum*, and *Cypripedium insigne* varieties. *Cattleya labiata* was good, and so were *Cypripedium Nemaria Moensii*, *Dendrochilum Dearii*, and *Cymbidium tracyanum*. Among the *Cypripedium insigne* varieties were *C. l. Sanderæ*, *C. l. Dulcotense*, *C. l. Herefield Hall*, and *C. leeanum giganteum*. Silver Banksian medal.

H. S. Goodson, Esq., Fairlawn, West Hill, Putney (gardener, Mr. George E. Day), showed some excellent *Cattleya labiata* in several varieties, the white *Lycaste Skinneri*, *Maxillaria picta*, as well as several *Cypripediums*, including *C. spicerianum*, *Swinburni arthurianum*, *Charlesworthii*, *lathamianum*, and others. Silver Banksian medal.

Among the Orchids from Messrs. James Veitch and Sons, Limited, Chelsea, were *Cattleya Mantinii*, *C. Mrs. W. J. Whiteley*, *C. Portia*, *Laelio-Cattleya digbyana-gigas*, *Sophro-Cattleya Atrous*, *L.-C. Decia*, *L.-C. Tenos* (*bowringiana* × *L.-C.*

Nysa), *L.-C. Haroldiana*, and others. They made a beautiful display. Silver Banksian medal.

R. Briggs Bury, Esq., Bank House, Accrington, showed a few very beautiful Orchids. They included some lovely forms of *Cattleya labiata*, a splendid form of *Cypripedium triumphans*, *C. callosum Sanderæ*, and *C. leeanum magnificum*. Silver Banksian medal.

A vote of thanks was given to the Hon. Walter Rothschild for a small group of Orchids.

A botanical certificate was awarded to *Liparis fulgens* sent from the Royal Botanic Gardens, Glasnevin, Dublin.

Cypripedium × *The Pelican* (*Sandero-superbiens* × *rothschildiana*) was shown by Norman C. Cookson, Esq.

NEW ORCHIDS.

Laelio-Cattleya Cappel.—A very beautiful and richly coloured flower, the result of intercrossing *Lelia cinnabarina* and *Cattleya gigas*. The colour of the sepals and petals may perhaps be best described as orange-apricot, while the lip is plum-coloured and the throat yellow, a most beautiful flower that quite deserved the first-class certificate given to



ASPARAGUS MEDEOLOIDES MYRTIFOLIA.

it. Shown by Messrs. Charlesworth and Co., Heaton, Bradford, Yorks.

Laelio-Cattleya illustris.—A very pretty flower of somewhat stiff appearance. The petals are a charming colour, soft rose and buff, rose predominating in the sepals, the buff is most noticeable. The lip is intense bright purple. *Lelia Latona* and *Cattleya aurea* were the parents. Shown by Messrs. Charlesworth and Co., Heaton, Bradford. Award of merit.

Cattleya labiata Mrs. Francis Wellesley.—A very beautiful variety of *Cattleya labiata*, with rich rose-coloured sepals and petals and a wide open lip that is rose-coloured at the edge, marked with white almost throughout, and with yellow at the entrance to the throat. From F. Wellesley, Esq., Westfield, Woking. Award of merit.

Cattleya G. W. Law Schofield.—*Cattleya Lord Rothschild* and *C. Cooksonic* are the parents of this hybrid, which has white sepals and petals. The lower half of the lip is purple, but the top of each lobe is much lighter and the yellow lines

from the throat run into it. From Messrs. Sander and Son, St. Albans. Award of merit.

Cattleya labiata Miss Kate Brazier.—This is a beautiful variety of *Cattleya labiata*. Petals and sepals are pure white, the white lip is veined and tinged in the centre with purple, and has a blotch of yellow at the entrance to the throat. The petals are very fine, large, and of perfect form. From Messrs. Sander and Son, St. Albans. Award of merit.

Laelio-Cattleya Eric Lucas.—*Cattleya Warneri* and *Brassavola digbyana* are the hybrids of this large and handsome flower. The large, loosely-arranged sepals and petals are rich rose, and the lip has a deeply fringed rose-coloured margin; the throat is green, fading to fawn towards the front of the lip. From C. J. Lucas, Esq., Warnham Court, Horsham. Award of merit.

Cypripedium × *W. R. Lee*.—This is a hybrid raised at Oakwood, Wylam-on-Tyne, by Mr. Norman C. Cookson (gardener, Mr. Chapman). It is a large, handsome flower, the dorsal sepal lined with dark crimson upon a creamy white ground; the long drooping petals are marked with deep crimson spots, and the large protruding lip is dull red and prettily veined. Award of merit.

FRUIT COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. S. Mortimer, Alex. Dean, H. Parr, G. Kelf, F. Q. Lane, G. Reynolds, J. Jaques, J. Willard, G. Norman, Owen Thomas, G. Wythes, W. Poupert, A. H. Pearson, Edwin Beckett, and J. Cheal.

Mr. Charles Ross, Welford Park Gardens, Newbury, exhibited a collection of seedling Apples, all of them raised by himself. They included Charles Ross and The Rival, of which we give illustrations elsewhere, Hector McDonald, Redwing, The Houblon, Paroquet, Atalanta, and others. Most of these have had a certificate or an award of merit at some time. A fuller account of them appears elsewhere in this issue. The Hogg Memorial medal was awarded.

Mr. H. King, Beddenham, Bedford, exhibited a small collection of Apples and Pears. The former were finely coloured, and comprised Red Reinette, Malster, Schoolmaster, Hall Door, The Queen, Sandringham, Golden Noble, &c. Of Pears there were *Beurré Superfin*, *Beurré Diel*, *Duchesse d'Angoulême* and others. Silver Banksian medal.

A cultural commendation was given to Canon Ellacombe, Bitton Vicarage, near Bristol, for a dish of Persimmon fruits grown out of doors, we believe, although this was not stated. Mr. Edward Lane, Kynaston, Ross, Herefordshire, sent several seedling Apples, but no awards were made.

Mr. Strungell, Rod Ashton Gardens, Trowbridge, showed a large handsome conical Apple; Mr. Charles Ross sent Redwing (very highly coloured), and Berks Pearmain; Mr. J. E. Hathaway, Baldersby Gardens, Thirsk, sent Apple Baldersby Elect; Mr. G. R. King showed Essex Pippin; and Messrs. James Veitch showed Apple H. Ballantine (Peasgood's Non-such × St. Edmunds Pippin). These and other seedling Apples were shown, but no awards were made.

Mr. G. R. King, East Hornden, Essex, showed Potato Recompense (Champion of Scotland × Beauty of Hebron). Mr. King also sent Potato Hercules.

Filbert Nut Faulkner's Prolific was sent by Mr. A. Faulkner, Inkpen, Hantsford.

Apples Charles Ross and The Houblon were well shown by Messrs. Horne and Sons, Cliffe, Rochester. We give illustrations of these in THE GARDEN this week, together with descriptions.

The imperishable Lubrose Paint was shown from the Lubrose Paint Company, Moorgate Station Chambers, E.C., and Val's Beetlecut was also exhibited by the manufacturers.

Messrs. D. Dowel and Son, Ravenscourt Avenue, Hammer-smith, exhibited pots in various sizes. Included were special deep pots for Lilies, &c., Orchid pans, and 2-inch pots for seedling Orchids. The new wire crock, a substitute for the ordinary crock, was shown also.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Druery, H. B. May, James Walker, R. Dean, James Hudson, E. Molyneux, J. F. McLeod, G. Reuthe, J. A. Nix, R. Hooper Pearson, George Gordon, Charles Jeffries, Charles Dixon, H. J. Cutbush, J. T. Bennett-Poë, Charles E. Shea, William Cutbush, E. H. Jenkins, W. J. James, E. T. Cook, George Paul, and Edward Mawley.

Probably the most interesting exhibit, and important, too, in view of the lecture on shrubs for winter effect, before the floral committee, was the remarkable collection of cut shrubs from Lord Aldenham, Elstree. Some 175 species and varieties were shown. Even from the point of view of effect the arrangement was in every way excellent, giving ample evidence of the value of these things when grouped in garden, pleasure ground, or woodland. We have no intention of cataloguing the whole of the collection. It was fully representative, not only reflecting great credit as a whole, but testifying to the way in which the culture of these shrubs is encouraged at Elstree. *Hollies*, *Cotoneasters*, *Privets*, *Osmanthus*, *Colletia cruciata* in flower, *Ruscus aculeatus* in fruit, *Pyrus prunifolia* in fruit, *Arbutus Unedo* in flower, *Physalis Franchetii*, *Ivies*, *Heaths*, *Euonymus europæus* in fine fruit, *Typha latifolia* (Bulrush), *Crataegus Crus-Galli splendens*, with large scarlet fruit, *Pyrus Malus John Downie*, *Berberis* in variety, *Salix babylonica annularis*, and *Quercus coccinea* Waterer's variety were among the more conspicuous. Silver-gilt Flora medal.

Messrs. William Cutbush and Sons, Highgate, staged a very attractive lot of hardy flowers, in which *Michaelmas Daisies*, *Chrysanthemums* in great variety, *Gladioli*, herbaceous *Lobelias*, *Erigeron speciosus*, *Rudbeckia laciniata*, *Anemone Queen Charlotte*, very fine; *Polygonum amplexicaule*, reddish rose spikes; *Engenia Ugni*, a Chilian evergreen shrub in fruit; *Colchicums*, *Shortia galacifolia*, and *Galax aphylla* in plenty were contained. A large collection of Tree Carnations was shown. Silver Flora medal.

Winter-flowering Carnations in variety from Messrs. Low and Co., Bush Hill Park, included *Mrs. Lawson*, *Royalty*, *Floriana*, and others, the same firm exhibiting *Asparagus medeoloides myrtifolia*.



THE GARDEN

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LESSONS FROM A FRUITFUL YEAR.

IN her provision of the common fruits of the earth Nature has been very bountiful this year, and with here and there an exception orchards and fruit gardens have returned a full harvest, yet in the midst of the abundance one hears numerous complaints, not of the fruit or its quality, but of the smallness of its monetary value and the difficulty of being able to dispose of it at a profit. It has been pitiable during the past month or two to see Apples in orchards some distance from market centres, that were well deserving of a better fate, falling to the ground and remaining there to rot. We have asked growers to give a reason for this deplorable waste, and have been met with the one general answer that the Apples would not pay to pick because there was no one to buy them. In ordinary seasons dealers pay visits to these outlying homesteads and buy the fruit from the growers, but this year the latter have waited for the purchasers in vain, because they could get more fruit than they could deal with at their own doors and had no need to go in search of it. Enterprising up-to-date growers, of course, seek out their own markets, but the fact remains that many of the people who contribute in both small and large ways towards the Apple supply of this country still adhere to the methods of disposal which were in vogue in the days when fruit culture was not the important industry it is now, and when foreign competition was unknown.

If we were apt scholars we might learn forcible lessons from these heavy fruit years, and how much behind we are in the way of varieties. There is far too much rubbish grown and put on the markets, particularly in the way of Apples. And though there is some truth in the statement that the best always sells in spite of the inferior, it is nevertheless a fact that when a market is glutted with low class produce its tone is brought down and the value of highly superior fruit is reduced in consequence. Various movements have been put on foot from time to time to encourage the culture of only the best varieties of Apples, and in certain districts good results are being shown, but there are hundreds and thousands of trees which existed before any agitation began that still stand and bear, and many of them are of varieties that will not pass muster in present-day competition. Perhaps matters will right themselves in time, but the process

is slow, for though any man who plants an Apple tree now may be given credit for obtaining a good variety if possible, there will be no radical changes, for a peculiar sentiment seems to protect old trees. So long as they grow and bear they are allowed to stand, the natural consequence being that so long as Nature keeps life in the relics of old-time Apple culture, scrubby fruits of inferior varieties will continue to find their way into the markets and do something towards keeping down the value of better produce. Again, it must be remembered that fruit of the best varieties in the hands of a good cultivator is a different article from that produced by a man who pays little or no heed to his trees. It is a significant fact that in years of plenty like the present the individuals who complain the least about low prices are reputedly good growers, while the fact remains that good cultivation may pay, but bad cultivation certainly will not.

Another lesson taught by the abundant harvest was referred to in a recent leading article in *THE GARDEN*, where it was predicted that, notwithstanding the unusually good crops this year, fruit from abroad will be as much in demand as ever after Christmas. In other words, we want better and more systematic methods of storing Apples instead of selling early, midseason, and late varieties direct from the trees, and bringing about the unavoidable gluts on the markets. Quite recently we read an article advising cold storage of Apples as a means of avoiding gluts and spreading the supply over a long period, but while we have many varieties that will keep almost till Apples come again if carefully stored, all that is needed is to grow a greater proportion of such, and then take care of them till the demand arises, after they are removed from the trees. Taking a broad view of the matter, it is a shame to see Apples like Blenheim Orange and Bramley's Seedling offered for sale in October when there are varieties in season then which would not keep much longer, simply going begging to find customers.

Lastly, we are once more brought face to face with the shortcomings of our methods of distribution. Enquiries are made, commissions sit, associations argue, and railway companies are abused, but the solving of the difficulty seems as far off as ever, and, except in a matter of miles, there are greater obstacles between British producers and consumers than those which divide the latter and growers in the colonies and abroad. A general custom is to lay it all to heavy railway rates and preferential

tariffs, but the companies vainly endeavour to point out that they do not live as philanthropic institutions, and shareholders know that dividends have been by no means high of late. Within a certain area of any large market centre distributive difficulties may not be great, but when one gets outside that they become apparent, and people ask what is the good of growing fruit when there is no market to take it, yet in a great town, perhaps, less than a hundred miles away, there are plenty of people ready to buy if they could only get the fruit at a reasonable price. Only the other day we paid threepence for two Apples (a pound) in a shop in a town situated in the heart of a fruit-growing district, and yet we know of growers only a few miles away who would gladly have given six times as many for the same money. There are obviously a good many pickings to be had out of the pie, because it is quite certain that in a season like the present the consumer does not reap the advantage of the cheap rates at which producers sell fruit. In fact, of all the questions raised in connexion with fruit culture that of distribution is the most complex.

HARDY CHRYSANTHEMUMS

ONE cannot be long in a garden at this time of year without learning that the hardy Chrysanthemum is chiefly responsible for its attractiveness. This delightful flower braves the keenest winds, the coldest rains, and some degrees of frost with apparent indifference. Without it we should hardly be tempted to linger in the garden at all, for it is the only flower now left to us. The hardy Chrysanthemum is everybody's plant; it yields a profusion of flowers with very little trouble—the maximum of result in response to the minimum of care—and it increases in decorative value for several years.

There is now an almost endless number of varieties to choose from in colours indescribable, white, and shades of pink, yellow, orange, bronze, red, and crimson; a careful choice of sorts will ensure a bountiful harvest of beautiful flowers. It is questionable whether any other hardy plant gives such a rich gathering of blossoms as the hardy Chrysanthemum. Who at this dull season would be without the lovely bunches of Goacher's Crimson, Horace Martin, Marie Masse, and others among the larger-flowered sorts, and the miniature bushes of Pompons, which now are as full of flower as the Hawthorn is of haws? For all are most easily grown.

Those who know the value of the hardy Chrysanthemum in the garden and in the home must have remarked, and regretted also,

its absence from the wonderful exhibition held at the Crystal Palace recently. This was given up almost entirely to the huge blooms of the Japanese sorts and the much less beautiful "incurves," both, no doubt, of value, but nevertheless appealing to a comparatively small section of the public in comparison with the popularity of the hardy varieties. In the National Chrysanthemum Society's show all types of the flower ought to be adequately represented, and it hardly seems fair that the most important one from the point of view of the amateur—and, perhaps, we might add of the professional gardener—should be relegated to such obscurity as practically to be excluded. If this type of the Chrysanthemum were encouraged by the society at its exhibitions we feel sure that many classes of general interest and usefulness would be added.

Why does not someone try to get scent into these flowers? We remember an old purple variety called Progne, said to have a strong Violet-like fragrance; although we would not care unreservedly to endorse this statement, it undoubtedly is pleasantly scented. The fragrance is quite distinct from that of the ordinary Chrysanthemum, which, by the by, we do not think at all disagreeable. We heard recently of another variety said to be sweetly scented, but we do not remember the name. Thus there would seem to be a basis for hybridists to work upon. It would be interesting to have a list of sorts that possess a distinct fragrance, and perhaps readers who may happen to know of any will be good enough to send us the names.

Why have the single Chrysanthemums fallen into disrepute? With the exception of the beautiful variety Mary Anderson, which, however, is more often grown in pots under glass than out of doors, they are poorly represented in the outdoor garden, yet their aid in the home when cut is invaluable.

LILIES IN 1904.

BEFORE attempting any detailed account of the doings of my own Lilies this year, I should like to call attention to two most important and interesting notes which have recently appeared in THE GARDEN.

In the number for August 27 (page 134), "A. O." describes the marvellous success of Mr. Corrin in flowering

L. SULPHUREUM in a small front garden at Richmond, and in the number for October 1 (page 229) a photograph was reproduced showing the plants in bloom near the house. It seems that five years ago Mr. Corrin planted seven of the bulbils which this Lily, like *L. tigrinum*, produces freely in the axils of its leaves, in his ordinary garden soil, to which a little lime rubbish, sand, and fowl manure had been added. These grew and steadily improved, two or three of them producing flowers in the fourth year, and all seven doing so this (the fifth) year; the flower-stems were nearly 6 feet high, six of them with three blooms, the seventh with one.

This is, indeed, good news to many, if not all, Lily growers, and most encouraging to those who have hitherto been somewhat doubtful as to the hardiness of this grand species in our ordinary English climate. If it will flourish like this in a simple compost at Richmond, it should prove to be a thoroughly hardy and satisfactory Lily, one that may be confidently added to the small and select list of "reliables," and we should all try our luck with it as soon as possible. It is likely that we shall succeed better with the bulbils than with the bulbs

themselves, though we may have to wait four years, or even five, before we get any flowers, for these home-grown bulbils will be certainly obtainable, and will develop into bulbs in due course, which are better adapted to our climate than imported ones.

I have quite a number from my own two bulbs, and they are making good growth; but I put them originally in pans in a cold frame, not liking to trust them in the open ground. They will now, however, be planted out this autumn in a suitable soil and position, and I shall hope to live long enough to admire the fine effect of a big clump in flower, say in 1908!

LILIUM TESTACEUM.—In a letter to THE GARDEN of September 17 (page 197), Mrs. Carroll writes from Bickley Vicarage, Kent, to say that five years ago she was collecting plants on a hill above Ragatz, in Switzerland, and came upon some unknown Lilies then bearing seed-pods. She brought home some bulbs and planted them in sandy, stony soil in her Kentish garden; the third year they flowered, unmistakably *L. testaceum*! It seems impossible that there can have been any mistake, and it is indeed a startling discovery, and one that will cause much perturbation among the Lily "scientists," for *L. testaceum* (or *excellentum*), the well-known and popular "nankeen-coloured" Lily, has always been considered a hybrid, most probably between *L. candidum* and *L. chalcedonicum*, and has never been found in a wild state before. It is rather extraordinary that Mrs. Carroll's letter has elicited no further correspondence on this interesting discovery, at least I have failed to come across any allusions to it since it appeared. Of course, it is possible that the bulbs brought home were, by some remote chance, stragglers from a distant garden, but this seems most unlikely. We shall, doubtless, hear more of these wild testaceums before long.

Now for a few remarks on the season of 1904 in my own small garden. I only wish I had something satisfactory to record, though I must say I hardly expected success with my Lilies after the lamentably cold and wet summer and autumn of 1903. It was a terrible handicap for the poor bulbs, and many of them failed miserably in consequence. In fact, I can count those species that have flowered well on the fingers of my two hands! Let me take them in order of merit, omitting those newly planted last autumn, and including only the old-established bulbs. First and foremost comes

L. HANSONI, which was simply marvellous! From my two bulbs, which did very fairly last year, I had this summer five spikes, four of which carried eleven, eleven, fourteen, and fifteen flowers respectively, while the fifth was a massive fasciated structure bearing a huge flattened-out head, like Hercules' club, with no less than fifty-nine blooms on it, all perfect. I have never seen such a head on any Lily before! A photograph of it was reproduced in THE GARDEN for August 13 (page 112). Hansoui is undoubtedly a most satisfactory Lily to grow, and apparently appreciates its quarters in my garden, on the west side of a big sheltering Holly bush, though it must have almost too much *Anemone japonica* all round it.

L. HENRYI, as usual, was splendid, better than ever, though to my mind it has two rather serious drawbacks—the somewhat straggling growth of its long curving stems and the comparatively small size of its flowers. But it is everybody's Lily, especially now it is becoming much cheaper, and it possesses a fine constitution, and will grow in almost any soil and position; moreover, we can get over

the difficulty caused by its peculiar growth by planting it among tallish shrubs, through and over which it will delight to climb and to arch its long powerful shoots, as it does in its own native land.

L. CANDIDUM came in a good third, and was very beautiful, several spikes bearing over a dozen, one as many as sixteen, flowers. But I very nearly had to leave it out of my well-behaved list of "V. G.'s" altogether, for at the critical moment, just as the buds were beginning to swell, that foul disease, Botrytis, made its appearance in nearly the whole of the clumps in the garden, and I was in despair. Thinking I might do something with liver of sulphur (potassium sulphide), I procured some without delay, and watered every part of every Lily, whether already affected or not, freely with a solution of 1 oz. to 2½ gallons of water. The effect was simply magical; the disease was at once checked, if not altogether cured, and my grateful Madonnas a few days later were glorious in their wealth of divine flowers. I may add that I carefully removed and burned all the shrivelled leaves from the stems before watering, also that I gave a second dose to the most sickly-looking two days later. One or two of the expanded flowers eventually showed a suspiciously untidy brown edging to their petals, but had it not been for the bare stems it would have been a hard matter to discover that there had been anything amiss. Of course, it remains to be seen if the cure is permanent or only temporary, but in any case it is a great thing to know that the candidums can be saved at the eleventh hour by such a simple process.

G. S. REID.

(To be continued.)

RECENT PLANT PORTRAITS.

The first number of the *Revue Horticole* for October contains a portrait of

Callicoma serratifolia, a most interesting and apparently free-blooming flowering shrub from Australia and New South Wales. The bunches of flowers might be said to resemble a pale form of the well-known *Buddleia globosa*. It is by no means new, having been figured by Andrews in his "Botanical Repository" as far back as 1809, and also by Loddiges in the twelfth volume of his "Botanical Cabinet." Messrs. Nabonmand of Golfe Juan, near Cannes, hope to be able to supply rooted layers of this pretty shrub next spring. Though doubtless not quite hardy everywhere, it would probably be so in Devon, Cornwall, and the Isle of Wight.

The November number of the *Botanical Magazine* contains portraits of

Allium albo-pilosum.—Native of Southern Turkestan. This is the largest flowered species of the genus, but is somewhat dull in colour and more botanically than horticulturally interesting. The white hairs on the foliage account for its specific name.

Helipterum splendidum.—Native of Western Australia. This is quite one of the most beautiful and showy of the composite everlastings that has yet been seen. It is in the way of the well-known *Rhodanthe Manglesii*, but its flowers are about three times larger, and of a yellowish creamy white. It is, unfortunately, an annual, and the plants of it that flowered at Kew in April of this year under unfavourable conditions as to sunlight produced no seed, and died after flowering.

Cryptostegia madagascariensis.—Native of Madagascar. This is a very beautiful stove flowering shrub, with large flowers of two shades of rose colour, resembling those of an Oleander.

Dendrobium bellatulum.—Native of China. This is a most distinct and beautiful little Orchid, with pure white flowers which have a broad vermilion lip, the two colours affording a most charming contrast.

Iris bismarckiana.—Native of Palestine. This is a very distinct and handsome Iris, introduced

from Lebanon in 1888 by Messrs. Dammann of Naples. It belongs, unfortunately, to the *Oncoycelus* or Cushion section of the genus, which few, if any, growers can cultivate successfully. The plant figured flowered in the Alpine house at Kew in May, 1904.

The *Revue de l'Horticulture Belge* for November figures

Davidsonia pruriens.—An exceedingly handsome stove shrub introduced by the late Mr. Bull in 1875, but which, from the amount of room it requires for its successful cultivation, is almost impossible to grow, save for those possessing warm houses like the Palm stove at Kew.

Bulbophyllum barbigerum, the curious little Orchid with its movable lip, which attracts so much attention when exhibited in public, though its flowers are otherwise quite insignificant.

W. E. GUMBLETON.

CHRYSANTHEMUMS.

CHRYSANTHEMUMS AT WARREN HOUSE, STANMORE.

CHRYSANTHEMUMS are grown extensively in this garden, and both exhibition and decorative varieties are well cared for. Fully 1,000 of the former and about 2,000 of the latter are cultivated, and on the occasion of our visit the exhibition plants were at their best. Mr. C. J. Ellis, who has charge of these gardens, has certainly just claim to be recognised as a successful grower of large blooms. He has got together a representative collection of Japanese sorts. This grower has seen the fallacy of retaining the older kinds for exhibition, however pleasing and attractive they may be. Unless one has the largest and the best, not necessarily the coarsest and least attractive because they are big, an exhibitor has little chance of succeeding. One of the groups in this collection is set up in a large glass house. Here the plants have plenty of room, and the excellent system of ventilation ensures their well being. Mrs. Bischoffheim takes a keen personal interest in all that concerns the garden. The sport from the popular Miss Lily Mountford, that originated here, is named after her.

For effective use in the conservatory this is a beautiful variety, hardly large enough for exhibition perhaps, but distinctly pleasing owing to its crimson-scarlet and yellow colouring. The blooms of Mrs. George Mileham were very large, the bright rose-pink colour, with silvery white reverse, making this a standard Japanese sort. Better blooms than those of the bright amber-coloured Mrs. Harry Emmerton are seldom seen. The handsome hutter-yellow coloured blooms of Mrs. Greenfield were attractive, as were also those of Mr. F. S. Vallis. The last named is an ideal exhibition flower, having florets of very great length, building up a large and handsome bloom; colour, soft citron-yellow. This is a plant of easy culture. The large white incurved Japanese blooms of Miss Elsie Fulton proved that this fine sort still maintains its high position as an exhibition flower. Mme. Herrewége, a pure white sport from Australie, the deep rose, with silvery reverse, incurved Japanese, was all that one could desire, and the blooms of the parent variety were quite up to the usual standard. General Hutton is another handsome bloom; the flowers deep golden-yellow, tinted with red. The intense orange-yellow flowers of Duchess of Sutherland were noticeable, owing both to their colour and their elegant and graceful form. This is a beautiful flower of which we unfortunately have too few.

The newer Miss Mildred Ware, a bronzy carise bloom of drooping form, is largely grown here. Henry Perkins, introduced two seasons since, again showed its splendid exhibition qualities; it is reddish crimson on deep yellow ground. Bessie Godfrey is a canary-yellow Japanese bloom of spreading and drooping form, and we have seldom seen the blooms of George Lawrence (gold and bronze) in better condition. The white flowers of Mme. C. Nagelmakers, Simplicity, and Mutual

Friend much impressed us with their good quality. Richer coloured flowers were represented by Godfrey's Pride, Mrs. R. Darby, and many others, and of the flowers of Lord Ludlow a special note must be made. Quite 2,000 plants of the decorative sorts are grown in bush form, and these make a fine display, extending from October till March. Such varieties as Soleil d'Octobre begin the season well, and with Souvenir de Petite Amie, L. Canning, W. H. Lincoln, Mme. Felix Perrin, and quite a host of others provide an abundance of cut flowers for indoor decorations.

D. B. C.

NOVELTIES AT THE CRYSTAL PALACE.

WE do not generally expect to see the season's new introductions at the shows. As a rule, the majority of them are first seen at the trade growers, and then in the following and subsequent years, if they meet with public approval, they gradually find their way to the showboards of the leading exhibitors.

At the National Chrysanthemum show held at the Crystal Palace recently there was a large number of novelties displayed, and of these the following appear to be the most promising: Souvenir de Mme. Buron, a fine pale sulphur-yellow sport from Miss Elsie Fulton; Roi d'Italie, one of Calvat's new seedlings, a grand incurving bloom with whorled florets grooved and pointed at the tips, colour rich deep yellow; W. A. Etherington, blooms of the pure Japanese type, very large in size, with very great length of floret, colour lilac-mauve, passing to white; Beauty of Leigh, a fine Japanese with florets curly at the tips, colour a fine shade of silky glossy yellow; G. F. Evans, very full and double, florets rather pointed, big blooms, incurved type, pointed at the tips, rich golden amber; Emblème Poitevine, an incurved form, very close and compact in build, and slightly hairy, large, colour deep golden-yellow; Chrysanthémiste Montigny, an immense Japanese, grooved florets and twisted, pure pale primrose yellow; Lieutenant-Colonel Ducroiset, a large yellow Japanese with very long florets; Mrs. E. Crossley, big Japanese with broad florets, pure, pale butter yellow; Mrs. Boosey, another Japanese of good size, with broad florets, a globular flower, colour rosy mauve, reverse silvery; Mrs. Charles Beckett, a large white; Buttercup, a large solid-looking incurved of rich decided yellow, deep and solid in build; and Mrs. A. H. Loe, a very fine deep-coloured crimson, a large Japanese, with golden reverse, one of the novelties that was certificated should also be mentioned.

C. H. P.

CHRYSANTHEMUMS AT BATTERSEA PARK.

The exhibition of Chrysanthemums which is annually held in the large greenhouse in the frame ground near the Albert Bridge Road entrance is one of the most attractive of its kind in the metropolis. A large span-roofed house, about 110 feet by 21 feet, is devoted to the display, which is set up in the form of a large sloping bank of bloom, interspersed with a few foliage plants at intervals, the sides and ends of the house being covered with pretty little freely-flowered plants of decorative Japanese and Pompon varieties in great profusion.

All kinds of standard varieties in the various sections are shown, from that tiny little gem Mlle. Elise Jordan to the most gigantic of the modern Japanese, and the taste displayed in the arrangement as a whole leaves little or nothing to be desired. Among the hairy varieties now but little esteemed by the general body of growers for show, but which still attract a little curiosity on the part of the general public, are S. T. Taggart, a pure canary yellow; Leocadie Gentils, a pretty pale lemon yellow-coloured variety of good size; and the well-known and almost ubiquitous Hairy Wonder and Beauty of Turou.

Another section always represented at Battersea is the large-flowered Anemone group, and instances of these that are in good form are the well-known Descartes, a fine variety of great size; and of a rich

shade of deep vinous crimson; Delaware, an old American variety of nice character; W. W. Astor, and Sir W. Raleigh. The incurved section is also very well done, and there are numerous examples of this old-fashioned type in many of its best forms. Among them are most if not all of the Queen family, the old purple Prince of Wales, Bonnie Dundee, Baron Hirsch, a fine golden-bronze variety, much esteemed in the London parks; Jeanne d'Arc, a very pretty pale blush well-formed flower of at least twenty years standing; Globe d'Or and Mr. Bunn in deep rich yellow, and Duke of Wellington, a noble solid-looking bloom of more modern build.

Japanese are, of course, in the ascendant here as elsewhere. Among them in the yellows are some really noble flowers, the chief in this shade being Bessie Godfrey, which is really a lovely pure pale yellow variety; Mrs. Harry Emmerton, large in size and of fine form; Earl of Arran, R. Hooper Pearson, quite a deep rich golden shade of this colour; Mrs. Greenfield, F. S. Vallis, and Mrs. T. W. Pockett.

All the well-known varieties of established repute are included in the Battersea collection. In the whites are Mme. Herrewége, the huge sport from its equally huge parent Australie; Souvenir de Petite Amie, dwarf and useful for the front row of such a bank of bloom as is here put up; Florence Molyneux, gigantic in size, tall of habit, and a fine effective flower for the rear; Mme. Gustave Henry, Miss Alice Byron, Mermaid, Lady Byron, Nellie Pockett, &c.

President Barrel is a remarkably rich variety, colour rosy magenta with golden reverse; then by way of curious and effective contrast is Mme. E. Roger, which in its young state is very distinctly green and excites much interest; John Shrimpton, William Seward, W. R. Church, and Eastman Belle are good examples in varying shades of crimson. Pretty varieties of pinkish tints are the old American variety Wm. Tricker, N.C.S. Jubilee, one of Calvat's best; l'Ami Etienne, Mme. A. Rousseau, Louise, and Mrs. Coombes.

C. H. P.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 15.—Royal Horticultural Society, 1 p.m. Horticultural Club Monthly House Dinner, 6 p.m.; Professor Boulger on "Gilbert White and the Selborne Society."

November 16.—Liverpool Horticultural Association Chrysanthemum and Fruit Show (two days).

November 17 and 18.—Grimsby Chrysanthemum and Fruit Society.

Royal Horticultural Society.—At the general meeting of Fellows held on the 1st inst., Mr. George Bunyard, V.M.H., in the chair, thirty new Fellows, including Lord Balcarres, Lady Harlech, Lady Hillingdon, the Hon. Florence Russell, Dr. Robert Bell, General Berkeley, Colonel Carr-Calthrop, Miss Lankester, and Miss Spring-Rice, were elected, and three other horticultural societies, of Oxford, Wylam-on-Tyne, and New Zealand, were affiliated to the parent society. The following are the dates fixed for the meetings of this society during 1905: January 3, 24; February 14, 28; March 14, 28; and March 30—April 1 (second Colonial fruit and vegetable show); April 11, 25; May 9, 23; May 30—June 1 (Temple); June 20; July 4, 18; August 1, 15, 29; September 12, 26; October 10—12 (British fruit); October 24; November 7, 21; and December 5 and 19. The dates of the Auricula, Carnation, Tulip, autumn Rose, and autumn vegetable shows are not yet decided. The first Colonial fruit and vegetable show, with British, Colonial, and foreign jam and bottled and preserved fruits, will take place on December 13 and 14 next. The society has been awarded a Grand Prize by the International Jury at the St. Louis Exhibition for their exhibit of copies of the Society's Journal in Group 105.

A golden wedding.—On the occasion of the celebration of their golden wedding Mr. and Mrs. A. Deao, Kingston-on-Thames, were invited to a

entertainment at St. James's Hall on the 4th inst. It proved to be a most pleasant and successful gathering. The hall was well filled with friends and well wishers, many of them from a long distance. The programme, which consisted of animated pictures, songs, and solos, was thoroughly enjoyed by all. Happily, speeches formed no part of the programme. Mr. Dean and his son simply said a few words of thanks for the kind expressions of good wishes from those present and from many absent friends. Before commencing the second part of the programme the president of the Temperance Association of Kingston availed himself of this happy occasion to present Mr. Dean with a beautifully illuminated address as some slight acknowledgment of the long and generous services he had rendered to the society. The meeting ended as bright and happily as it began, by a dance, in which all the younger and some of the older friends joined.

Gardening on the West Coast of Scotland.—Mr. Peter Barr, V.M.H. sends the following interesting letter from Kirn: "I have, the three months I have been down here with my sister, done little else than work in the garden. The last fourteen years Narcissus

planted in the same manner, close to the long border under the Ivy wall, and with grass in the same way, as these will remain as permanent margins to the beds and border. To see whether this class of Tulip will stand such treatment, last year I planted close to the foundation of the house *Ixias*, *Sparaxis*, *Tritonias*, and *Babianas*. Over these I planted *Daisies*. I was too late this year in coming here, and all were out of flower except the *Ixias*, and the flowers of these were as good as any I have seen under the most favoured conditions in Guernsey and Holland, and, for that part, in my own Cape pits long ago. The aspect is due east. This year I have planted around the greenhouse, close to the foundation, the same class of bulbs, and others with a west and south aspect, and expect better results. I am also planting, under similar conditions, some of the dwarf *Daffodils*, such as *N. minimus*, *N. triandrus*, &c. I shall spend the winter here, and expect a great floral display. The other day I added 120 species and varieties of herbaceous plants to those already in the garden, also a great variety of bulbs, to see what will succeed along the West Coast of Scotland. I had a great effect in October with the varied coloured foliage

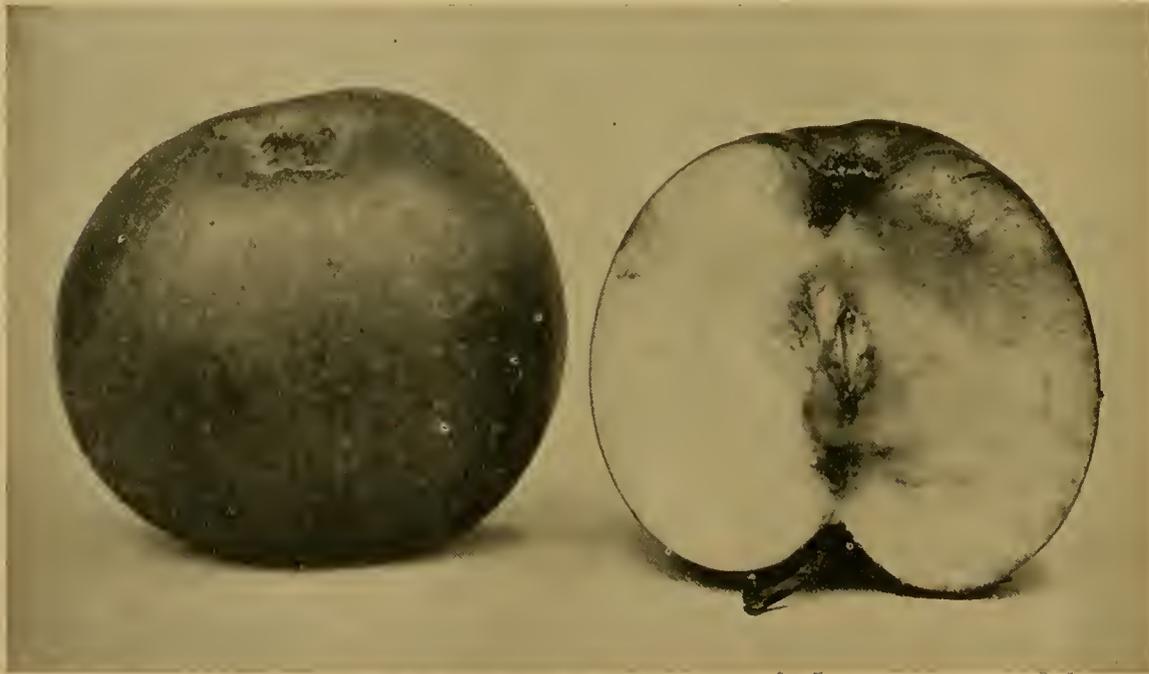
us, and when walking near Hunter's Pier we were struck with a glorious sight. In a small garden there was a boulder completely covered with *Polygonum vacciniifolium* in full flower."

The British Gardeners' Association in the North.—A meeting to consider the formation of a district branch of the British Gardeners' Association, was held on the 2nd inst. at the Station Café, Sunderland. The meeting was addressed by Mr. W. Hall, general superintendent of the Sunderland Parks, &c., as an official representative of the association. Mr. Hall's activity on behalf of this endeavour to raise the status of the gardener deserves much praise. After a short discussion it was unanimously resolved to form a Sunderland branch of the association, and as a result of the meeting the names of thirty-two additional local gardeners and nurserymen wishing to become members have been forwarded to the secretary. Similar meetings will shortly be held in the North, at Bradford (on the 17th inst.), Newcastle, and West Hartlepool, and in the South, at Bournemouth (on the 15th inst.), Croydon, and Caterham.

Royal Gardeners' Orphan Fund.—The seventeenth annual dinner of this fund has been

arranged to take place at the Hotel Cecil, Strand, W.C., on Thursday, May 11, 1905, upon which occasion the Right Hon. the Earl of Mansfield has kindly consented to preside.

Apple Cornish Aromatic.—Among the many Apples that nowadays one rarely sees mentioned is *Cornish Aromatic*. It is an Apple that deserves a better fate than to be lost sight of. Dr. Hogg described it as "a valuable dessert Apple of first-rate quality; in use from October to Christmas. The tree is a free grower and an excellent bearer." A note from a correspondent some time ago thus refers to this variety, and we can endorse his opinion: "This variety is not so well known as it deserves to be. The fruit develops to a large size under good conditions and is very handsome and showy, in some instances being mistaken for a Peach when grown on a wall, owing to its rich colour. The flesh is firm and juicy, aromatic, and of good flavour. It does well in a sheltered position, and grows best as a bush or horizontally-trained or fan-shaped wall tree." Now that attention is directed towards



APPLE CORNISH AROMATIC. (Natural size.)

Johnstoni Queen of Spain has been naturalised in the grass. The last two years there has been a falling off in the number of flowers, so I lifted all the bulbs and found that the *Narcissus* fly had attacked them. I destroyed all the affected plants, and I thought I would make a little change in the arrangement. The garden has a long border backed with an Ivy-covered wall. On the lawn there is a large oval bed filled with *Roses*, &c., and on each side half-moon beds full of bulbs and herbaceous plants. I peeled off the turf round the half-moon beds and planted *Narcissus* Queen of Spain and *Galanthus Elwesi*, and sowed the surface with very fine dwarf-growing grass seeds. This was done in August. The grass is very pretty, especially when each blade is seen in the morning with "its ain drap o' dew" looking like diamonds glistening in the sun. In October there came to me six dozen mixed early single *Tulips*. These I planted round the oval bed alternated with *Queen of Spain* *Daffodils*, and sowed over with the same very fine dwarf grasses. These are just making an appearance. Being, I suppose, in luck's way, another six dozen early single *Tulips* and a package of *Queen of Spain* *Daffodils* came to hand. These I

of *Azalea ponticum*, and recently I have planted two round beds, 5 feet in diameter, with *Azalea mollis*, *Olearia Haastii*, *Berberis ilicifolia*, *Kalmia glauca*, *Andromeda axillaris*, *Pernettya mucronata*, *Buxus Fortunei variegata*, and *Deutzia gracilis*, edging the beds with single *Wallflowers* and planting *Ranunculus* amongst the dwarf shrubs. Not being sure they will succeed, I am having some *Anemone fulgens*, which I am sure will not fail me. Another little garden I have made at the north end of the house edged with "Nancy Pretty" and *Aralis lucida variegata*; in the centre a large *Olearia Haastii*, with *Rhododendron nobleanum*, *Hydrangea paniculata*, *Phormium tenax*, *Aucuba*, *Lilies*, &c. You see, I am likely to have plenty of occupation, if only in keeping the weeds down, as the garden for many years has suffered neglect. Double white *Primroses* have been a great sight in this garden during the past six weeks."

Polygonum vacciniifolium at Kirn. Mr. Peter Barr writes from Kirn, Scotland, on the 4th inst. about this pretty plant: "Ten days ago we had Mr. Whitton (Superintendent of the Glasgow Parks) and Mrs. Whitton staying with

so many new varieties, some of the old and good ones are in danger of being lost sight of. Our illustration is from a photograph taken in the Langley nursery of Messrs. James Veitch.

Pears Le Lectier and Charles Ernest.—I was very much astonished, on reading the notes on these Pears in your issue of the 5th inst., to find that Messrs. Veitch are credited with having raised both of them. *Le Lectier* was raised by M. Auguste Lesneur of Orleans, by crossing the well-known *Williams' Bon Chrétien* and *Bergamotte Fortunee*, a stewing variety, and was first put into commerce by M. Transon frères of Orleans. *Charles Ernest* was raised by the well-known French firm of fruit-growers, M. Baltet frères, Troyes, and put into commerce by them. I think it is only fair to the raisers of two such useful Pears that come in late in the season that the above correction should be made.—*JUSTITIA FIAT.*

Chrysanthemum Lemon Queen.—For October flowering in the open this *Chrysanthemum* is especially good. In growth it is all that is desirable, reaching 3 feet, branching abundantly, and giving its bronzy yellow flowers freely.—E. M.

Early-flowering Chrysanthemum Freedom.—As its name implies this is a very free flowering plant. The colour is a pretty shade of rosy purple, and although not popular, it has its place in the hardy border, and may be used most effectively. Among the many novelties of this colour, the variety under notice stands out distinct from all others, and on this account a special value has been set upon the variety. It is in flower during October. The habit of the plant is excellent. When propagated in March and grown on steadily afterwards the best results are obtained.—D. B. C.

Early-flowering Pompon Chrysanthemum Veuve Clicquot.—This is a Pompon belonging to the early flowering section of which too little is known, and yet it is one of the best of the whole series. Unlike many of the Pompon sorts that are somewhat compact in growth, this plant is very free. The sprays stand out well from one another. Half a dozen plants arranged in a group in the outdoor garden are effective. For cutting they are always reliable, the blooms developing in good form without disbudding. The colour may be described as bronzy terra-cotta. In flower from late September till the end of October. Height about 2½ feet.—D. B. CRANE.

Vitis Colnetia (autumn tints).—This has been three years on my house wall (west), and was this year a gorgeous sight. The larger leaves, up to 8 inches and 9 inches across in some cases, were brilliant red in shades, and this year's growth, which hung down, was deep purple at the tips. It retained both lovely tints some three weeks, owing to absence of frost and rain. In the summer the deep green leaves, of a leathery substance, are likewise beautiful. It runs about 20 feet up the wall, to which the old wood is lightly nailed. Of course, a severe winter might kill it, but so it would much else.—J. R. D., *Reigate*.

Chrysanthemum Ralph Curtis.—This sort, from Mme. Marie Masse, is a very useful variety flowering at the present time. It is creamy white in colour, with a purple shade at the base of the florets, height about 2 feet. Many of the early Chrysanthemums may well take the place of Sweet Williams, Canterbury Bells, &c., in beds and borders. If planted in the reserve garden till required, given a good soaking of water the day before lifting, transferred with a good ball of soil, and watered several times if the weather is dry, they will be little the worse for the moving.—A. OSBORN.

Rose Dorothy Perkins from cuttings.—Among climbing Roses this variety bids fair to eclipse any of the rambling section at present in commerce. The flowers are double, of a lovely soft rosy pink colour, and produced in clusters abundantly. The foliage is of a bright glossy green. Here it is grown on pergolas. Some of the growths have attained the length of 14 feet in two years. Its flowering season is remarkably long, blooming as it does from July to October, and still there are buds to open, which will last well into November should fair weather prevail. Having taken some of the old flowering wood out during February of the present year, and not feeling inclined to destroy the prunings, despite the time of year, I made them into cuttings, and inserted them thickly in 5-inch pots, in a gritty compost, placing them in a warm greenhouse. Almost every piece rooted. The cuttings were then potted off singly into small pots, returning them to the same temperature till they had become established, when they were gradually hardened off and placed in the open. During July they were again potted. This time 6-inch pots were used. Some of the plants have reached the height of 3 feet. It remains to be seen whether they will make such long growths as those that are grafted. If they are not so vigorous, they should prove very useful, even if only a few feet of growth is eventually made, either for pots or for planting out generally.—G. ELLWOOD, *Swaamore Gardens*.

A City garden.—One would hardly expect to find much of interest in a garden upon which the sun never shines from November to April, for such is the disheartening situation of St. Andrew's Rectory Garden, near St. Paul's Cathedral. Many plants thrive there nevertheless, and probably the

careful tending they receive compensates, in a large degree, for the absence of light and air. High walls surround this little garden, fog hovers over it more or less from autumn till spring, and even in summer its daily sunshine bath is brief. Some of the plants to be found there are the last one would expect to see, for instance *Manettia bicolor* is quite at home in the greenhouse, and grows and flowers freely. Some flowers have been open throughout the summer, and even now the plants are not quite blossomless. Those whose gardens are similarly situated should not neglect this plant. The Maidenhair Tree (*Ginkgo biloba*) is represented by a flourishing plant some 5 feet high and a good many years old; it behaves so well amid City bricks and mortar that there is a talk of finding it a permanent home out of doors instead of leaving it in its 7-inch pot. A *Heuchera* with inconspicuous flowers has made its home in the rockery, but it is in some danger of being replaced by one more beautiful, as, for instance, *H. saaguinea*, which probably would grow just as well. Fuchsias, Azaleas, Ferns in variety, Begonias, and other plants have kept the outdoor garden bright during summer, and there are bulbs asleep among the Ferns that will ensure its attractiveness in spring. Some Crocuses, Narcissi, and Spanish Irises in pots in a cold frame are peeping through the soil, giving promise of dainty flowers to come. In the greenhouse *Clivias*, *Coleus*, *Plumbago capensis*, Palms, Ferns, and other plants are grown, and so satisfactorily as quite to repay the rector and Mrs. Clement Smith for their gardening labours.—T.

Amalgamation of Dunfermline Horticultural Societies.—In order to provide for the easier working of the societies, on account of the subsidies granted from their funds by the Carnegie Dunfermline Trust, the amalgamation of the Dunfermline Horticultural and Chrysanthemum Societies has for some time been suggested. Meetings were held on October 29 of both societies, and it was ultimately agreed to amalgamate the two. A committee was also appointed to draw up rules and to make other necessary arrangements for the formation of the new society. The following committee was appointed: Mr. S. Bigham, Mr. Andrew Brown, Mr. James Dunagen, Mr. P. Marshall, Mr. James Proctor, and Mr. D. Robertson, with Mr. John Hynd as interim secretary. The amalgamation is likely to further considerably the cause of horticulture in Dunfermline. The generous grants of the Carnegie Trust give the committee every opportunity of making their shows among the best of their kind in Scotland.

CACTUS DAHLIAS

IN THE GARDEN AND IN THE FLOWER VASE.

FEW modern garden flowers are more beautiful, more disappointing, and more utterly bewildering in their behaviour than the Cactus Dahlia. One is positively astounded at the beauty and brilliance of the flowers shown at an autumn exhibition. All are so beautiful one hardly knows which to prefer, and then one remembers with wonder how rarely one sees a group of Cactus Dahlias that is really satisfactory in itself and an ornament to the flower garden.

Determined this time that there shall be no mistake, a dozen or more of these very taking flowers are ordered, and next spring the gardener presents you with some newly-struck plantlets that have just arrived. They are potted, petted, and grown on till they are fit for planting out in that choice, sunny, yet open quarter of the garden set apart for the trial of novelties. By the next autumn it is not unlikely that not more than three out of the eighteen or more you may have ordered have proved of value, either as a decorative plant or as a flower that will stand when cut and in water, and once more you repeat what you have often heard, "Cactus Dahlias are so very

disappointing I really don't care to grow them." It is decidedly annoying, I must say, to find that the loveliest flowers seen at a show, and grown specially for that purpose, are positively of no value in a garden for decorative purposes. But so it is, and therefore one must try to correct this state of things, which with some care and knowledge can be rectified.

One of the most common defects of the Cactus Dahlia is to bury its flowers in the leaves; another will produce its flowers on long stalks, but so pendent that you cannot find them unless you hunt for them. One variety will grow too tall, another so thick and bunched that its flowers are lost in the growth. In fact, the disappointed amateur will tell you the defects are endless, and will add, as a last crushing remark, how utterly useless they are for cutting—that final reprobatation of modern gardening that measures everything by the rule of thumb and scissors.

And yet the Cactus Dahlia is a lovely plant, and at its best is quite indispensable to any good garden. Would growers, I wonder, be persuaded to show their new varieties in pots? We should then have some idea of their true behaviour. Would gardeners, young and old, learn the simple art of "dis-shooting" and thinning the superabundant growths of the flowering Dahlia? To those who have not closely observed the growths a flowering Cactus Dahlia makes, I would say—notice that of the two shoots on either side of a flower one is much stronger than the other, and that the weaker one generally has a flower-bud showing. Well then, pinch out that strong shoot, and leave the weak one with the flower-bud, and you will find that shoot will give a succession of flowers that will show above the leaves, while if that strong shoot were left it would smother the flowering shoot. This principle once understood, and the grosser leafy growths suppressed, you will no longer complain of your Dahlia bushes being flowerless in effect, and, with the knowledge that comes from experience, you will by degrees transform your leaves into glowing heads of flower.

There are already a few Cactus Dahlias of faultless habit, even when grown on strong soils and in cold climates. I will specially mention *Britannia* and *Amos Perry* as examples of what a Cactus Dahlia can be. I dare say great growers can give us the names of many others as good or nearly so, but there are many that, with the precautions I have mentioned, are well worth the trouble incurred; but when it comes to requiring flowers that will live in water for days even when cut with long stalks it is the new narrow-petalled, pointed flowers that stand best. Cut boldly, strip off the leaves, save one or two, and plunge the stems in big vases that hold plenty of water, and you will find the Cactus Dahlia is a lasting decoration in the hall or any fairly cool room, when such varieties as the following are chosen: Of reds and crimson Red Rover and Amos Perry are most enduring. *Gabriel*, a lovely flower with white tips to its pointed petals, is the most lasting Dahlia I know as a cut flower, and its habit is excellent. Mrs. J. J. Crowe is the most lasting and prettiest of yellows in water, while Mrs. E. Mawley is most disappointing, both in the garden and in the vase. Oddly enough, I have not found a good buff for cut flowers with long stalks, but *Khaki*, when cut short and in a low glass, will last three days.

There are many, such as *Britannia*, *Mary Service*, *Laverstock Beauty*, and other more delicately coloured flowers, that live perfectly well, and may be cut with long stalks; but of the very rich-coloured crimson Red Rover is

most lasting, and stiff in petal and stalk, while Winsom is the only white that I know that is effective in the garden and fairly lasting as a cut flower. I do not attempt to grow many varieties myself, so I can only speak positively of those I have watched and tried. Others, I hope, will give their quota of knowledge, and so conduce to the growth of the Cactus Dahlia, which is really one of the most splendid additions to the garden in autumn.

EDWARD H. WOODALL.

CACTUS DAHLIAS FOR THE FLOWER GARDEN.

STATEMENTS are occasionally made in the gardening Press to the effect that the present race of Cactus Dahlias, so much prized for exhibition purposes, are of little, if any, value, through defects in habit, for garden decoration. Several very sweeping statements to this effect have been made recently, it is to be feared, by persons quite inadequately informed as to actual facts. A plantation of Cactus Dahlias grown entirely to supply blooms for exhibition purposes, planted in rich soil, probably thinned and disbudded, heavily mulched and freely watered, cannot be expected to display much decorative value, as the conditions under which the plants are cultivated are hostile to normal development. But when the plants are placed out in ordinary garden soil to produce stock, a practice with many growers for sale, the natural habit of the plant is exhibited, and it is seen what excellent subjects many of the varieties make for garden decoration.

In order to give a practical test as to the fitness of certain varieties for employment in the border, I applied to eight firms who cultivate Cactus Dahlias on a large scale, viz., Messrs. Burrell and Co., Cambridge; J. Cheal and Sons, Crawley; Hobbies (John Green), Dereham; S. Mortimer, Farnham; F. W. Seale, Sevenoaks; J. Stredwick and Son, St. Leonards; C. Turner, Slough; and J. Walker, Thame, to supply the names of the best eighteen varieties of Cactus Dahlias for garden decoration, old and new, and the large number of eighty-two varieties were sent in. Of this number Mrs. H. L. Brousson, pale salmon and yellow, received seven votes; Britannia, salmon-pink, and Mrs. E. Mawley, yellow, five votes; Amos Perry, shaded crimson; Effective, amber and rose; Eva, white; Floradora, deep crimson; H. J. Jones, delicate primrose and pink; and J. H. Jackson, maroon, four votes each; Clara G. Stredwick, bright salmon; Comet, blush, striped crimson; Coronation, bright fiery scarlet, classed as a Pompon Cactus from being undersized; Dainty, yellow and pink; Nabel Tulloch, clear rosy pink; Mary Service, pink and salmon; Mrs. de Luca, deep yellow; Prince of Yellows, Sirius, bright yellow, striped and speckled with crimson; Uncle Tom, maroon; Violetta, violet-rose; and Winsome, white, each received three votes.

Other varieties receiving a less number of votes were Aunt Chloe, Carmen, Captain Broad, Countess of Lonsdale, Conrad, Cheal's White, Columbia, Dorothy Vernon, D. A. Dunbar, Etna, Florence Tranter, Farnham Favourite, Fred Cobbold, Freedom, General French, George Gordon, Gaillard, H. T. Robinson, Hereward, H. W. Selleon, Iceberg, Ibis, Imperator, J. W. Wilkinson, Lyric, Lottie Dean, Mr. Seagrave, Mrs. Spencer Castle, Manxman, Mrs. Jas. Bailey, Mrs. John Barker, Mabel Needs, Mrs. Sanders, Marconi, Miss Grace Cook, Magnificent, Miss F. M. Stredwick, Mrs. J. J. Crowe, Mrs. H. J. Jones, Mrs. J. W. Wilkinson, Miss Winchester, Mrs. D. B. Crane, Mrs. McKergow, Mayor Weston, Owen Murrell, Orion, Osprey, Percy Mortimer, Peace, Phineas, Queen Alexandra, Regulus, Spitfire, and Yellow Gem.

Looking over the foregoing varieties, it would appear that flowers having shades of salmon and related tints are among the best adapted for border purposes. Mrs. H. L. Brousson, which stands at the head of the list, through having obtained the highest number of votes, is pale salmon and yellow; and several more of similar shades of colour are decidedly high up as decorative sorts. The

average height of the varieties named would be from 3 feet to 5 feet, a difference in height which is desirable, as in a border planted with Dahlias it is desirable some should be taller than others in order to form a background, and it is satisfactory to note that many of the newer sorts possess a greater freedom of bloom than the popular varieties of a few years ago.

R. DEAN.

COLOUR IN THE MIXED BORDER.—V.

AFTER the dazzling colour scheme which has occupied our attention in Sections 1, 2, 3, and 4, it is quite refreshing to turn to the mental contemplation of the white flowers that are at our disposal in such profusion. We can even be hypercritical, and choose only the sweetest and fairest for what, I think, will be the prettiest of all the sections.

If it is considered suitable, you might begin with planting at the back of the border a well-grown bush of white Lilac Marie Legrange or alba grandiflora, Weigela Lavallei, and the graceful white Broom. These three shrubs will give white flowers for some weeks of spring and summer. Chrysanthemum maximum will follow, with Foxgloves, Spiræas, and Hollyhocks; and finally, for the autumn, there are the Phloxes and Pyrethrum nigrinum. The latter is much prettier, and flowers twice as well if you cut down its first growth a little. The delicately coloured varieties of the white star Asters, as well as the larger blossomed sorts, are now practically inexhaustible. If you like the idea of clumps of Sweet Peas, these can be repeated, Blanche Burpee and Giant White, being sown for the purpose, in heat, in February. Next in height come the perennial Lupins, charming double white Columbines, Campanula pyramidalis, and C. persicifolia, Rockets, double and single, Malva moschata alba, and Achillea (the Pearl). The Achilleas must be carefully staked and tied up, or they soon become unruly. Now comes the portion of the section for a charming display of Liliun candidum, which will be all the better for having their stems hidden by the surrounding foliage. Liliun longiflorum can be planted a little further forward, and in about the same neighbourhood Liliun speciosum album will be very effective for autumn flowering. For the autumn, too, Hyacinthus candicans is charming, and no trouble to grow; it is contented anywhere, and increases rapidly. The Bride Gladiolus is not so accommodating, but it will flower, if it chooses, in early summer, with the Spanish Iris Blanche Superbe; Canterbury Bells, double and single, and white Sweet Williams, giant and double; Antirrhinums and Pyrethrum Boule de Neige. Anemone japonica must be planted here, and white Carnations, of which there are so many good sorts. For spring, plant The Bride Anemones, and for the same season the fragrant double Narcissus, which must never be lifted, or it will produce blind buds. More towards the front you can put tall Tulips for grace and Hyacinths for sweetness, and white Pinks for May and June. I believe the valuable Mrs. Sinkins has at last been superseded by Her Majesty, and I hear of another white one, Florence, grown by Ladham. But in spite of the superior flowering qualities of these novelties, nothing will persuade me to give up the dear old-fashioned small kind, which flowers so early, and fills the summer air with the spices of Araby. Iceland Poppies must not be forgotten, for they are the most faithful of all our

biennials. Then come the Primrose tribe (but the white varieties are few), Pansies and Violas, the modest Hepatica (which once planted must never be disturbed), and the white Bluebells, or more properly Squills, which are so pretty in spring. With the Arabis, or Rock Cress, and Woodruff (Asperula odorata), for filling in, we may complete our list of herbaceous plants.

The list of white annuals is so long that I cannot attempt to record them all. Those I should recommend are: Godetia Duchess of Albany, double Jacobæa, Schizopetalon Walkeri, Sweet Sultans, Candytuft, Clarkia alba, Scabious, China Asters, Ten-week Stocks, Malope (a good late flowerer and not afraid of frost), Stock-flowered Larkspurs, and Lavatera alba. Phlox Drummondii is particularly charming in its white form, but it must be well pegged down. Again, I should recommend the free use of foliage plants to intermingle with the white flowers, and no bare spaces should be allowed if it is possible to avoid them.

Now we come to pink—for Section No. 6—and I think this will be the most difficult one to deal with. It is not that there is such a scarcity of pink flowers, but it is that the tone of many is so unsatisfactory, for a disagreeable mauve tint seems to pervade most pink flowers. There are also very few tall plants for the background, so I think we must have recourse to some of the charming shrubs for our spring blossoming. Weigela rosea, Azaleas (the latter, if they have a little peat bestowed on them, will thrive perfectly), double Peach, and Thorns—all delightful colours. Sweet Peas may be planted. I think Queen of the Pinks would do, though it is a trifle "salmony"; but we must not be too particular about shades. The pink Hollyhocks are the prettiest of all. There is, too, a pink Columbine, Canterbury Bells, double and single; Sweet William Pink Beauty, the true Leander shade; and Antirrhinums, quite a novelty; Peonies, double and single; Pyrethrum, hardy Chrysanthemums, and Gladiolus for autumn flowering, with pink Anemone japonica, Raby Castle Carnations, and Shirley Poppies. Miss Willmott Verbena, the finest ever grown, would be very useful pegged down towards the foreground, where we can have Hyacinths, pink Squills, Tulips, Primroses, Hepaticas, and double Daisies.

For the autumn, alas! we have no tall flowering plants, and the background will be dull and flowerless; but climbing Roses might be trained on poles—Dorothy Perkins, for instance, and others of like value. These would give a second bloom when most wanted. Annuals are by no means scarce; China Asters of different sorts, Nemesis, Ten-week Stocks, Godetia, Eschscholtzia, Saponaria calabrica, Silene pendula, and Scabious, besides many others if they are wanted.

Towards the background of the pink section I should plant a group of Humea elegans. It is a thing that has gone out of favour of late years, owing, I believe, to its having contracted one of those mysterious diseases which seem so often to affect over-cultivated plants. It is a half-hardy biennial, and must be grown from seed sown in heat the previous July, and planted in well-manured soil. It is very graceful with its grass-like foliage and heads of reddish brown feathers, and it is also pleasantly aromatic. It must be well staked, as the feathery heads catch every breath of wind. I should also mix with the flowers in your pink plot, foliage plants of a pink, or brownish tone; you have no idea how well it looks. The pure green is a little crude with pink.

AUGUSTA DE LACY LACY.

TREES AND SHRUBS.

NEW FLOWERING SHRUBS.

OF the numerous additions to our hardy flowering shrubs that we owe to the skill of the hybridist, many have originated at M. Lemoine's nursery at Nancy. An enumeration of them all would be a lengthy matter; but of flowering shrubs alone especial mention may be made of the genera *Deutzia*, *Philadelphus*, *Ceanothus*, *Weigela*, and *Syringa* (the Lilac); of the last he has raised all the numerous double-flowered forms now in cultivation. In the autumn catalogue just issued the following novelties among hardy shrubs are announced:

Deutzia Lemoinei Fleur de Pommier.—The original *D. Lemoinei*, now so popular for forcing, resulted from the intercrossing of *D. gracilis* and *D. parviflora*, whereas the new variety is announced as a seedling from *D. Lemoinei*, whose flowers had been fertilised by the pollen of the Chinese *D. discolor purpurascens*. In the variety *Fleur de Pommier*, the flowers, which are freely borne in clusters of twenty to thirty, are of a soft rose colour fading to white. In habit it is the counterpart of the variety *Boule Rose* (of the same origin), but differs in the form, size, and arrangement of the panicles and flowers.

D. myriantha.—Obtained by crossing *D. corymbiflora* with *D. parviflora*. The flowers disposed in large branching corymbs are borne in great profusion. They are of a snowy whiteness, and as large as those of *D. Lemoinei*, which they resemble in shape, the stamens forming a little yellow cluster in the centre of the flower. Its blossoms usually appear about June 10, at the same time as those of *D. crenata*, and some eight to fifteen days earlier than those of *D. corymbiflora*. The plant is hardy and proof against late spring frosts, which often destroy *D. corymbiflora* to the ground level.

D. Vilmorina.—This new species, named after Mme. Maurice de Vilmorin, was discovered in the mountainous districts of Se-Tchuen (China) by l'Abbé Farges, who sent seeds to M. Vilmorin in 1897. It is a shrub from 3 feet to 4 feet in height, but will probably be grown taller. The flowers are borne twenty to thirty-five together in thyrsoïd panicles, which are at first upright, and then spread horizontally; they are snow-white, measuring 2½ centimètres in diameter—that is to say, almost as large as those of *D. discolor grandiflora*. It is quite hardy, and begins to flower about the first week in June.

Philadelphus Lemoinei Rosace.—Another addition to the numerous delightful forms of *Philadelphus Lemoinei* which have become so generally popular in gardens. In this the flowers, borne three or four together in each axil, are as much as 7 centimètres in diameter, with two or three rows of petals, creamy white, changing to pure white, with the agreeable odour of the original *P. Lemoinei*.

Syringa vulgaris Réamur.—A single-flowered Lilac, whose flowers are borne in large thyrses as broad as they are long. The blossoms are of a deep carmine-red and of a satiny texture.

S. v. Deuil d'Emile Gallé.—A double-flowered variety, with very large blossoms of a mauve-carmine colour, with the buds purplish.

S. v. Waldeck-Rousseau.—Flower clusters as much as 30 centimètres in length, but lightly disposed. The blossoms are of a soft lilac-rose, with a white centre, a charming tint.

Weigela (Diervilla) précocé Conquérant.—A few years ago M. Lemoine gave us the first of the early-flowering *Weigelas* in *W. précocé*, reported to be an importation from Japan; since then he has put others into commerce. The variety *Conquérant* is said to bear very large flowers of a deep rose-lake, with the outside carmine.

W. précocé Glorieux.—The blossoms, which open about May 8, are numerous, of good shape, and in colour mauve-lake, with the reverse of a deeper hue.

W. p. Gracieux.—Flowers white, with a sulphur throat, while the outside of the blossoms and the buds are of a salmon tint. Commences to flower by May 10.

THE RED OR RIVER BIRCH.

(BETULA NIGRA.)

THIS Birch is very distinct from our own *Betula alba*, as it lacks the grace and elegance of the common kind; still it is as an ornamental tree certainly entitled to more attention than is usually given it, for the Red Birch is one of the most picturesque trees we possess. It forms a free, bold-growing specimen, often divided into several large branches at but a little height from the ground. The branchlets are not so numerous as in the common Birch, and lacking the elegance of this last, the Red Birch forms a tree of totally different aspect. The bark, however, is pretty in winter, as it partially peels off and remains attached to the stem and principal branches in flakes, which give to a good specimen of it a wild and picturesque appearance. The old bark in this semi-detached state is of a reddish cinnamon colour, while the young which is thus exposed is a kind of brownish buff. At a little distance the trunk and principal branches appear to be much stouter than they really are, by reason of the loose bark. On dry, gravelly soils the Red Birch, though it will there hold its own, is of rather slow growth, while in moister spots it makes much more rapid progress.

burnished silver. Then two varieties of the White Birch are as distinct from each other as it is possible for two members of the same species to be. I allude to the very pendulous form *Youngi*, many of whose branches hang down almost perpendicularly with the main stem, and *fastigiata*, which is nearly as upright as a Lombardy Poplar. The Paper Birch of the United States (*Betula papyracea*), the bark of which is used by the Indians for the construction of their canoes and numerous other purposes, is another of the Silver Birches, but, as a rule, less drooping than the common white Birch.

H. P.

NOTES ON HARDY PLANTS.

HESPEROCHIRON PUMILUM.

WRITING in THE GARDEN of June 18 concerning *Hesperochiron californicum*, "W. I." observes he has not seen the above plant in a living state. What was supposed to be *H. pumilum* flowered on the rockery at Hale Farm Nursery, Tottenham, in June, 1880, I believe, for



PREPARATORY WORK FOR TRANSFORMING A CINDER TENNIS COURT INTO A ROCK AND WATER GARDEN AT PARK HOUSE, READING. (See page 327.)

A group in the park, especially near water, or a single specimen on the lawn, will display the characters of the Red Birch to the best advantage. It is a native of a large district in North America, and is quite hardy in this country. As a timber tree it is in considerable demand in America, as it is said to be a close-grained, handsome wood, which can be easily stained exactly to resemble Walnut. It is just as easy to work, and is suitable for all, or nearly all, the uses to which Walnut is put. There are large forests of this Birch throughout Canada growing in various positions. From a timber point of view, that from the higher and drier districts is superior to that grown in damper spots. A group of the various Birches, now they are devoid of foliage, shows the great variation in habit that is to be found among them, even more conspicuously than can be noticed during the summer months. For instance, a direct contrast to the Red Birch are some forms of the common kind, whose bark is of such dazzling whiteness that their boles glisten in the sun like

I am writing entirely from memory. The plant I refer to Mr. Moon made a drawing of, and an illustration of the plant appeared in THE GARDEN some time later. But the plant I remember, which flowered well and freely, does not agree with the description given of it by "W. I.," who describes the white flowers as "veined with violet and with a yellow base." The plant that flowered at Tottenham had pure white flowers, without any of the colour markings I have mentioned above. As the leaf characters given of *H. californicum* by "W. I." so nearly agree with the Tottenham specimen, it may be the latter was not true to name. The Tottenham plant had decidedly oblong spatulate late leaves of the size of those of *Onphalodes Luciliae*, the low, tufted growth slightly spreading, the segments of the pure white blossoms so deeply cut that the tips extended in a flattish direction. I have only seen the plant on this occasion, and have frequently enquired for it, but in vain. Doubtless the back numbers of THE GARDEN will contain a note of the plant, which at the tim

interested me greatly, and possibly some other information that I am not now able, with the lapse of nearly a quarter of a century since I saw the plant, to give. If I remember, however, the plant at that time excited interest among botanists generally, as it was an entirely new genus. The plant was certainly a very beautiful subject.

Hampton Hill.

E. H. JENKINS.

SALVIA RUTILANS.

THIS *Salvia* lives out of doors unprotected winter after winter in the south-west, and forms large bushes. In Nicholson's "Dictionary of Gardening" its height is given as from 2 feet to 3 feet, but I have now in my garden a great bush over 6 feet in height and 8 feet through covered with flowers. It cannot compare for effect with *S. splendens grandiflora*, but its cherry-red bloom-spikes are pretty, and the delicious scent of its bruised foliage, which has led to its being termed the Pine-apple *Salvia*, entitles it to rank with *Aloysia citriodora*, the Lemon Verbena, and *Eucalyptus citriodora* as one of the most fragrant-leaved plants. S. W. F.

FRANCOA RAMOSA.

THIS pretty Chilian plant, better known under its English name of Maiden's Wreath, is perfectly hardy in the open in the south-west. A large plant 2 feet to 3 feet across, bearing dozens of tall, branching flower-sprays, set with numberless pure white blossoms, is a beautiful picture in early August. In the Tresco Abbey Gardens, Isles of Scilly, and in the south of Ireland it also flourishes amazingly. Two other species—*F. appendiculata* and *F. sonchifolia*—are also grown, but they lack the beauty of *F. ramosa*. Over the greater part of the country *Francoa ramosa* is grown as a greenhouse plant, and is very valuable for conservatory decoration. They may be wintered in cold frames, and take up but little room at that season of the year. They are easily propagated by division of the roots in the spring just as growth commences, or may be raised from seed, of which a quantity is produced. S. W. F.

A GENERAL CALENDAR.

HERBACEOUS BORDERS.

FROST and the necessity of making a clean sweep of all dead and decaying flowers will give an opportunity of getting to work on herbaceous borders as soon as possible with a view to most of the work being done before severe frost sets in. This will put an end to all operations of this kind. All things that are better for annual lifting and replanting should now receive attention, and unnecessary plants taken away. Borders of this kind should be planted as naturally as possible, care being taken not to have absurd mixtures, and never allow one species to encroach unduly on another. Due regard should also be taken as to the height of the different species, and if any mistake has been previously made it should now be rectified.

Aubrietias.—These beautiful spring-flowering plants are always best when propagated from cuttings if it is desired to increase special varieties. A few, such as *A. violacea*, *Hendersoni*, and *Leichtlini*, seed somewhat freely, and each one fairly reproduces its kind, but it is wisest to depend on cuttings for the perpetuation of character. Cuttings taken in the spring and rooted in nursery beds should now be in good order for planting out; if this is attended to without delay a profusion of bloom may be looked for in the spring. Old clumps may be lifted, and if carefully pulled to pieces and replanted will soon make nice plants; but these seldom do so well as plants from cuttings.

Myosotis dissitiflora.—No spring-blooming plant is more beautiful than this Forget-me-not, and no hardy plant so unsatisfactory when increased by cuttings, yet no plant lends itself to this method more readily. Now that clumps or masses of shoots

are showing incipient stem-roots, it is only needful to pull them off and dibble them in, and they are well rooted in a couple of weeks. But all such plants are very unreliable. Some do well, some do not, even the best, however, never bloom well or consistently, hence they are in the spring disappointing. There is no better way to get this interesting plant in good form than by raising from seed. Seed sown early in August in the open ground always furnishes good plants to put out in November, and if the plants when taken from the beds in May are planted out on a north border they will in all probability furnish enough self-sown plants for all requirements.

Forcing Rhubarb.—Owing to the dry weather experienced of late Rhubarb matured early, and should therefore be ready for forcing. If desired earlier than usual, any variety may be forced, but the early red-stalked forms are the quickest to give young stalks, and are to be preferred for early supplies. If the clumps are lifted and placed in a rather strong heat they may fail to start satisfactorily; they would do better if first subjected to a frost or two. The number of clumps likely to be required should be partially cleared of soil and introduced into heat after exposure to frost.

Horse-radish.—If neglected such a hardy subject as Horse-radish never pays, the roots become tough and do not swell to a useful size after they become thickly matted together from having occupied the same ground too long. To get good results the ground should be deeply dug, burying a good quantity of manure some 18 inches deep, and then planting with a dibber in holes which nearly reach the manure. By these means shapely roots can be obtained, which may be used with very little waste; advantage should be taken of the present season to do this kind of work. If left till the spring, with a rush of other work, this necessary operation may be neglected.

Tomatoes.—Stores of outdoor Tomatoes still being ripened up in warmth must be looked over frequently, and any fruits showing the least signs of decay must be removed, as decay spreads through a box or shelf of fruit very rapidly. For the kitchen these stored fruits are most useful, and they help to eke out the supply without coming too hard on the winter-fruited plants.

Lilium Harrisii.—Where a stock of this Lily is required for flowering in pots no time should be lost in obtaining the bulbs if this has not already been done. If the bulbs are potted and placed in a cold frame, the lights of which are only used to ward off the heavy rains, they will root slowly and surely, and may be had in flower nearly, if not quite, as late as those kept out of the ground so much longer. Where required for early blooming, the bulbs should of course be potted as soon as possible, so that they will at once commence to root, for it is useless to attempt to force them till the pots are well filled with roots.

Norwich.

T. B. FIELD.

THE FLOWER GARDEN.

PLANTING BULBS IN GRASSLAND.

IN this class of gardening failure is more evident than success. There is more than one reason for this. A by no means unusual source of failure closely follows on the heels of those who plant bulbs in grass lawns, in all probability the worst place in creation. Any good lawn, to keep it good, is subjected to a very heavy rolling many months in the year. In this way the under-sod becomes so consolidated that the bulbs literally have no chance whatever. This is especially true when the turf is raised, the bulb dropped in, and the turf firmly trodden down again. In the first place, the lawn is not usually a good place, and the mode of procedure is wrong. Even in woodland grass there are too many failures, and usually there is a due want of preparation. The round cheese-taster-like knife is not, as a rule, suitable for the work, and the dibber, where it can be used, is even worse. Where a real success is desired a slope, and better if rarely rolled, is one of the best

positions to deal with. In such a place the under-soil is of a "maiden" character generally well suited to the work. Much trodden woodland walks, when of grass, as they should be, are not the best, but the sides of these are invariably excellent, because less firm. In the case of the latter bulbs may be freely planted with good hope for success. Twenty-five years ago in woodland side walks and adjacent grass land I planted large numbers of spare bulbs, and to see them in flower nestling in pretty colonies or tufts was a pleasing sight. But our favourite planting tool was the grubbing axe, so-called, or mattock. With this an irregular piece of turf several feet long and 1½ feet wide was torn up, the lower soil was next picked up with the same tool, and about half removed when the bulbs were thinly placed in and covered with soil. As to the turf, we rarely replaced the one-half of it, and the little that was relaid was broken up by the hand in pieces not larger than a man's palm, and placed thinly over the spot. In this way there was a minimum of resistance to the bulb growth in spring, and with a thin carpet of grass in the first year or two we had little difficulty in establishing anything in the way of bulbs. The method is simple and easily adopted. Where larger areas have to be planted it is quite simple to repeat the above as many times as desired. Much depends on the soil below as to the amount of success. In some woodland grass, for instance, the more delicate varieties are quite bappy. The white Ajax Narcissus and Queen of Spain are notable examples of this success. Were I using the rounded bulb planter introduced by Messrs. Barr, it would be rather for the making of the holes only. The piece of turf cut out I would discard, and instead of it, when all the bulbs were in position, some good soil would be sown broadcast and swept into the holes with a hard broom. Far too much has been made of stoppering up these nicely cut holes, and those who prefer to achieve success in grass gardening will do well to take less note of it. A bulb of Narcissus, if thrown down on rough grass, will not only root into the sod, but even in the first season half bury itself from view, and presently the bulbs will be quite covered up, not with decayed vegetable matter as one would suppose, but with fibre and turf. I have instances of this myself. To a considerable extent the bulb will look after itself. The ordinary pickaxe is also a good tool for bulb planting. Lay down a rope in a zigzag outline, and with the point of the pick make the most informal of groups. The same tool will speedily form channels or holes as you will. In large groups, however, it is best to take up the turf, pick up the soil thinly, and irregularly plant the bulbs. Replace the soil only moderately firmly, and break up and relay about one-half of the turf. There may be positions to be planted where this last would require modification. In woodland or pasture a good lesson may be secured from the way the fallen leaves are drifted by the wind, and the long drift is especially good for copying. I have done this very often.

E. H. JENKINS.

DAY LILIES.

No amateur should be without some species at least of these hardy and easily-grown plants, which, with their flowers of varying shades of yellow and orange, are very decorative subjects for the border, and although the individual blossoms are unfortunately fleeting, they are produced in such quick succession that the scapes, through the flowering season, are never without expanded blooms. Day Lilies revel in a moist soil, and never exhibit such vigorous growth as when planted by the waterside, where their roots are always moist. The stronger kinds are well adapted to planting in open spaces in the wild garden, but the soil should be well enriched before they are put out, and rampant-growing herbage rooted out around the space they are to occupy. They must be planted in the full sunlight, for under trees they will not flower satisfactorily, a large colony of *Hemerocallis fulva*, many yards in circumference, that I know of, which is rather shaded by trees, not having borne a single flower for ten years. Those who have no waterside

site available need not be deterred on this account from embarking on the culture of Day Lilies, for although the proximity of water induces exceptionally strong growth, they will succeed and flower well in the driest garden. My garden slopes steeply to the south and is very dry, the soil being light and stony, though fairly deep and the sorts of *Hemerocallis* mentioned all do well with me.

H. aurantiaca major.—This is undoubtedly the finest of the whole race, bearing large orange-yellow flowers over 6 inches across, the petals of which are of great consistence on stems from 2 feet to 3 feet in height. It has a lengthened blooming period, my clump perfecting its first flowers in June, and continuing to blossom until September. Complaints have now and again been made that this species is very shy in blooming, and last year a correspondent wrote: "The one reason why *H. aurantiaca major* fails in so many gardens is just lack of moisture." As in my dry garden it flowers profusely this statement is fallacious. It was introduced from Japan in 1895, so is still a comparatively new plant.

H. Dumortierii is a rather dwarf-growing species, about 2 feet or rather less in height, bearing soft yellow flowers tinged with orange 3 inches across; these are flushed with red on the outside of the petals, and are borne four or five on a scape. It is a June flowerer and its bloom-spikes lean outwards. It was introduced from Japan in 1833.

H. flava.—One of the commonest species as well as one of the best. It flowers in early June, throwing up numbers of bloom-scapes about 2 feet in height bearing clear yellow, deliciously fragrant flowers some 3 inches across. It is a native of Siberia and Japan, and has been known in this country over 300 years.

H. fulva.—A vigorous species, bearing orange-brown flowers 4 inches across on scapes about 4 feet in height in July. It is the least ornamental of the species named, but associates well with the Madonna Lily, its tawny brown forming a good contrast to the satiny-white spires of the Lily. It was introduced from Japan about the same time as *H. flava*.

H. Kwanso flore-pleno fol. var.—This is always handsome as a foliage plant, its variegated leaves being very ornamental. There is considerable diversity in the variegation, some plants having white leaves with narrow stripes of green, some green leaves with thin white lines, while in others the green and white alternate in equal proportions; of these the first is the most decorative. The flowers are semidouble, reddish buff in colour, 4 inches across, and carried on scapes 3 feet to 4 feet in height.

H. Middendorffii.—A dwarf species 18 inches in height bearing rich orange flowers, five on a scape, 3½ inches across, in June and July. It is a native of North-Eastern Asia.

H. Thunbergii.—A most attractive species, bearing pale sulphur-yellow scented flowers about 3½ inches across, on scapes branching tier above tier, in July and August, thus forming an excellent follower of *H. flava*. The scapes attain a height of about 2½ feet to 3 feet. The plant is a native of Japan.

The newly-introduced *H. citrina* I have not got. Besides the species named there are many hybrids, some of these being attractive flowers. The species *H. graminea* or minor is a dwarf plant suited for the rock garden.

In planting Day Lilies I have always enriched the soil to a depth of 2 feet 6 inches with rotten manure

and leaf-mould, so that, although their situation is a dry one, they are well provided with rich food. Doubtless the heights given would be greatly increased if the plants enjoyed abundant moisture.
S. W. F.

VERBENA VENOSA.

THIS old-time favourite is now rarely met with. It is a pity, for the purple Verbena is much too good to be altogether neglected. In many places it is hardy enough to winter in the herbaceous borders, with some slight covering as a protection from severe frosts. In colder gardens the plants should be lifted at this time of the year and have the fleshy roots planted thickly in boxes and wintered in cold frames. In the spring the plants are easily propagated by division. *Verbena venosa* thrives in any well-worked garden soil, and



CAVE AND WATERFALL IN THE ROCK AND WATER GARDEN AT PARK HOUSE, READING (FORMERLY A CINDER TENNIS COURT).

does not object to a little shade; but it is seen at its best when growing in the full sunshine. On bright days it is interesting to watch the shy humming-bird hawk moth daintily flitting over its flowers, for which it evinces a decided preference. *Verbena venosa* is not liable to attacks of mildew, nor does it fall a victim to the disease which spoils the florists' varieties, and, like the Begonias, a heavy shower only serves to make the flowers appear the brighter. It should be planted rather thickly, and is very effective when massed. Its peculiar shade of purple contrasts well with most yellows and bronzes. A very pretty and uncommon bed may be made by mixing it with *Calceolaria amplexicaulis*, and edging the whole with *Pelargonium Manglesi variegatum*.

A. C. BARTLETT.

THE ROCK GARDEN.

ROCK GARDEN-MAKING. — XIX.

WATER IN THE ROCK GARDEN.

HAVING already pointed out the advantages of water in the rock garden, I will now deal with the various forms in which this might be most suitably introduced, such as ponds, Lily pools, waterfalls, bog gardens, streamlets, &c., and I will give practical hints and illustrations.

PONDS AND LILY POOLS.

The most favoured form of water in connexion with a rock garden is probably a Lily pool or pond, and—provided a sufficient supply of water is available to prevent its becoming stagnant—a pond is an excellent means not only of making the rock garden more picturesque, but also of providing it with a most useful element, for a pond among the rocks enables us to grow choice Water Lilies and other aquatics or semi-aquatics; it also enables us to sprinkle the rock plants with water of the same temperature as the air, and, finally, it produces, through constant evaporation, a moist atmosphere, which is most beneficial to alpine plants from high mountain ranges.

THE SIZE AND SHAPE OF A POND

must naturally depend a great deal on circumstances. The size, of course, will have to depend on the ground, the facilities for excavation, &c., and, above all, the size of the rock garden itself. It is well to bear in mind that it is always advisable to avoid a crowded appearance, and that it is most desirable to be able to walk around the greater portion of the pond and to have access to the various plants used. Rather than bringing the pond close up to, say, a high and abrupt bank of rocks, it would be a better plan to make it a little smaller and allow for a space, wide enough for walking upon, between the pond and any high rocks adjoining it.

As to the shape, we must look to Nature as our guide, and observe her ways of forming ponds and streams. I mention streams because a natural pond, after all, is in most cases only a naturally widened stream, and subject to the same natural laws

in its formation. Let us for a moment follow in imagination the course of a natural streamlet in its meandering through a rocky district. The natural consequence of flowing water coming into contact with a projecting piece of rock will be to divert the course of the stream to the opposite bank, and if that bank consists of material softer than the rock, the washing out of soil and the production of a hollow place will be the inevitable result. If, then, in the construction of the rock garden pond we wish to give that pond or pool a natural appearance we must bear this in mind. In other words, roughly speaking, in Nature's streams and ponds a convex outline of one shore-line would have a



THE ROCK AND WATER GARDEN AT PARK HOUSE, READING, NEARING COMPLETION. FROM A PHOTOGRAPH TAKEN FIVE DAYS AFTER THAT OF THE FIRST ILLUSTRATION.

more or less concave outline on the opposite bank, and *vice versa*. If, therefore, we give to ponds connected with rock gardens an outline of circular, oval, square, or any other regular shape, we blunder. It also follows that when we make a pond in the rock garden the convex portions of the shore-line which project more or less into the water should consist of more massive rocks than the concave recesses, which might well consist of green sward only and suitable plants protruding from it.

WHAT TO AVOID.

An absurdity which cannot be condemned too strongly is the making of ponds in such a way as to have ground much lower than the water-level close to the pond, or, worse still, to have them perched on a hill, or in a high part of the grounds, and to have steep banks supporting the artificially-raised surface of the water. In Nature ponds are formed by water accumulating naturally by gravitation into depressions in the lowest and not in the high parts of the ground. To have a pond on a high level, say on a rocky plateau some distance away from the low ground, may seem right enough, but a depression close to a pond would look ridiculous, as a natural accumulation of water would have filled the low place first.

Another mistake frequently made when making artificial ponds is to allow the walling or cementing of the sides of the pond to be visible above the water-line, showing a distinct line so stiff and hard that no one would ever dream of supposing the pond to be a natural one. To avoid this I construct and arrange all ponds in such a way that a shelf or shoulder runs all around the pond and not less than 6 inches below the water-level. On this shoulder turf or stones can rest, and thus appear continued below the water-line. But of this more anon.

PONDS MADE WITHOUT MASONRY.

Sometimes it happens that the ground on which it is desirable to have the pond has a

subsoil of hard, impervious clay, or that the water supply is so abundant that the soaking away of some of the water into the soil would be of little or no consequence. In either of these cases a very picturesque pond of quite natural appearance might be constructed most easily and without any masonry. If the ground is such that the pond when excavated to the

the bottom and sides of the pond are secured by concrete or by walling with stones or bricks as long as it is made watertight, but the shelf or shoulder is the most important part. As a case in point I give here a further illustration showing the making of a pond at various stages. This I constructed last year for Mr. A. Bartholemew at Park House, Reading when

right depth holds water at the bottom but not at the sides, which consist of more porous soil, an easy method of rectifying this might be adopted. This consists in taking out a vertical trench, say 1 foot to 2 feet wide, all around the pond and at some little distance away from the actual shore-line. This trench is excavated to such a depth that it reaches well into the impervious clay subsoil; it is then filled up with clay, well worked and kneaded to the consistency of "puddle."

When neither sides nor bottom are watertight, puddling with well-worked clay is often resorted to, but as a rule this is unsatisfactory, especially if moles and water-rats abound; these sometimes play sad havoc with ponds, and leaks once made are difficult to locate and expensive to repair. In such a case cemented ponds are best and most satisfactory.

CEMENTED PONDS.

Unless the cementing of a pond is done in such a way that every trace of the masonry can be hidden from view it must be an eyesore. In THE GARDEN of May 14 I gave illustrations of a cemented pond, so masked that the presence of the cement would not be suspected. I will now describe my method of obtaining that result. It consists mainly of a firm shelf 8 inches or so wide and 6 inches below the water level. It matters not whether



CINDER TENNIS COURT AT PARK HOUSE, READING, TRANSFORMED INTO A ROCK AND WATER GARDEN.

during the progress of the work I took the photographs from which the accompanying illustrations were prepared. The site was most unfavourable, being, in fact, an ordinary cinder tennis court. Illustration No. 1 shows the preparatory work and the ugly cement work, with the shelf referred to running all around the pond. No. 2 shows the completed work photographed from the same spot. Since then, of course, the plants have grown and developed, and made the difference still more striking.

The third illustration is from a photograph taken only five days later than No. 1; it shows better than words the use of the shelf or shoulder referred to, which forms a firm resting place for stones or turf below the water-line. The fourth picture was also taken only five days later than No. 1, and shows how the ugly box-like structure in the background of the first illustration was transformed into a cave and waterfall. The pond is about 2½ feet deep, and the Water Lilies and other plants with which it is embellished have flourished exceedingly well. The same might be said of the Iris Kämpferi in the margin, and the hundreds of varieties of choice rock plants in other parts of this rock garden not visible in the illustration. Mr. Bartholemew, being a keen enthusiast and a most successful cultivator of those alpine plants which are considered difficult to manage, has succeeded admirably in making his favourites feel thoroughly at home. F. W. MEYER.

(To be continued.)

NEW AND RARE PLANTS.

A NEW HYBRID TEA ROSE.

MESSRS. PAUL AND SON of Cheshunt showed at a recent Royal Horticultural Society's meeting flowers of a new Rose, appropriately named Cherry Ripe. It is a seedling from Mrs. W. J. Grant, and the flowers of quite a distinct red shade, very fragrant, and most welcome in

winter, when this colour is much desired. It is very free, and a hybrid we shall hear much of.

CHRYSANTHEMUM KATHLEEN THOMSON.

AN award of merit was given on the 1st inst. by the floral committee of the Royal

give space to Chrysanthemums that do not produce an abundance of flowers of good colour and useful size and form. It was shown by Mr. Frank Lilley, St. Peter's, Guernsey.

KNIPHOFIA MULTIFLORA.

MR. W. E. GUMBLETON sends from Belgrove, Queenstown, Ireland, a spike of Kniphofia multiflora. The spike measured 19 inches in length, and is closely packed with flowers of a very soft creamy shade, the anthers a clear maize colour; the whole colouring is peculiarly beautiful. It is slender, tapering, and with certain colour associations would make an interesting garden plant. We treasure it for its colour alone. Mr. Gumbleton writes: "It is quite deciduous, and absolutely disappears underground during the winter. It seems quite hardy, as I have never given it any kind of protection. It comes into flower with *K. serotina* and *K. grandis* during the latter half of October and the first week in November, and, with the sole exception of the Christmas-blooming species *K. foliosa* or *Quartiniana* and *K. longicollis* or *primulina* (which are practically greenhouse plants, as they cannot perfect their blooms at that late season of the year except under glass), may be considered the last of the outdoor blooming Kniphofias"

ORCHIDS.

CALANTHES.

DURING the winter months few flowers

are more attractive than these, and when well grown none are more useful for decorative purposes. The long, graceful sprays, associated with those of *Asparagus Sprengeri*, are very handsome in tall vases. But how seldom do we see them in good condition. Some advocate potting the bulbs in leaf-soil, sphagnum, peat, and other mixtures too numerous to mention. Others recommend cow manure, loam, charcoal, and many other things. Few, however, would advocate a strong loam without additions of some kind. Some advocate liberal treatment, while others prefer a sort of starvation culture. *Calanthes* will put up with almost anything and still keep alive, but this is not growing them. To have them in that state of perfection one sometimes sees they must certainly receive something more than ordinary cultivation. A large batch I have growing in a Melon house would certainly astonish most Orchid growers. They had been under the shade of Melons the whole summer, so had to shift for themselves.



CHRYSANTHEMUM
KATHLEEN THOMSON.

(Given an award of merit in recognition of its value as a market variety.)

Horticultural Society to this Chrysanthemum in recognition of its value as a market variety. Its chief claims to distinction are its profuse flowering habit and the moderate useful size of the flowers. It is of bronze-gold colouring, and originated as a sport from *Caprice de Printemps*. It will doubtless prove a valuable variety. Growers for market rarely

One would think, with such treatment as this, the foliage would be flabby, and the bulbs and flower-spikes of little worth. Such, however, is not the case, for many of the bulbs are 1 foot or more in length, from 6 inches to 8 inches in circumference at the base, and carrying from three to four spikes each, which, when developed, will be from 3 feet to 5 feet long. In one pot I counted eighteen flower-spikes, and several more from a dozen to fifteen. There was one small pot in particular that attracted my attention. A bulb had been put in the centre of this, and through some cause the old bulb was broken off. Two growths started, both forming fine bulbs. One was carrying four spikes and the other three, making seven to the pot. The plants must have been liberally treated during the growing season, for though the flower-spikes were upwards of 3 feet in length the foliage was quite fresh. It would be interesting to know what some of our great Orchid growers have to say to this, and how they reconcile the no syringing and light shading with the dense shade afforded by the Melons.

Buried Park.

H. C. PRINSEP.

WORK FOR THE WEEK.

DENDROBIUM PHALÆNOPSIS SCHRÖDERIANUM.

THESE have for some time made a good show in the stove Orchid house, but now are ready for their well-earned rest. Until early March they will only need sufficient water to prevent their shrivelling; if they are well matured very little will be necessary to maintain the pseudo-bulbs plump. It is very desirable that the dormant eyes should not be started till spring. Good growths are only made when the weather is bright. There is nothing to gain and much to lose if they are not kept dormant till spring. This depends entirely upon the watering, for the plants are best in the stove during the winter. They should be well exposed to the light.

DENDROBIUM SPECTABILE AND D. ATROVIOLEACEUM.

Like the foregoing, these two beautiful Orchids are natives of New Guinea, but so far have proved much more difficult to manage under artificial conditions. The new pseudo-bulbs are now finishing, and it is just when the collar roots at the base of the new bulb are being emitted that potting or resurfacing should be carried out. Do not disturb them more than is absolutely necessary. If the soil is fairly good I would advise the removal of the surface material, adding fresh for the new roots to enter. It becomes necessary from time to time to repot them; when that is done remove some of the back bulbs, retaining not more than three behind the new one. Probably retaining too many old bulbs has had a good deal to do with the many failures experienced with these Dendrobiums. A compost of equal parts of fibrous peat and chopped sphagnum is the best, using ordinary pots half filled with rhizomes. Pot rather firmly, keeping the base of the plant and the surface of the compost on a level with the rim of the pot. The plants should be placed in the very lightest position in the stove Orchid house. Winter time is very detrimental to these, for, unlike *D. Phalænopsis Schröderianum*, the growths cannot be matured before the short dull days. The flower-spikes should now be in evidence, but unless the plants are making satisfactory growth they must be removed. Water should be given in limited quantities during the winter season; in fact, alter the growths are finished they are best treated in the same way as advised for *D. Phalænopsis Schröderianum*.

DENDROBIUM FORMOSUM GIGANTEUM AND OTHERS.

The flowering season being now over, this useful species, if well matured, will require practically no water during the winter months. A position in the driest part of the intermediate house should be given where much light can reach them. This treatment is also beneficial to *D. Parishii* and *D. primulinum*, and they should remain there till the flower-buds are visible. The growths of *D. Farmeri*, *D. densiflorum*, and *D. chrysotoxum* are matured enough to allow of water being almost withheld, and *D. fimbriatum*, *D. moschatum*, and

the like still require a fair amount of water; but when the terminal leaf is visible allow the plants to become dry before more water is given. They can remain in the house in which they have been grown; reducing the water supply will afford enough rest.

W. P. BOUND.

Galton Park Gardens, Reigate.

THE KITCHEN GARDEN.

VEGETABLES AT ALDENHAM.

(Continued from page 295.)

CAULIFLOWERS.—The varieties to depend upon are Walcheren and Magnum Bonum, sown early in September, wintered in cold frames, and put out in spring. For a later supply Mammoth, Early Giant, and Autumn Giant are sown in frames and outside in succession. All are given plenty of space. The last-named variety is planted among the early Potatoes, thus utilising the land to the fullest extent. To obtain the necessary succulent growth abundant supplies of sewage are given.

BRUSSELS SPROUTS are largely and well grown. Dwarf Gem, Exhibition, and Northaw Prize are the varieties. About the middle of March the seed is sown in frames, transplanting as required. One of the chief points in obtaining the finest Sprouts or buttons—I do not mean the largest, but the most shapely, firm, and deep green in colour—is the provision of plenty of space. The rows are 3 feet apart and the plants 2 feet 6 inches.

TURNIPS are largely dependent upon the season, but much may be done to ensure a crop of desirable roots by quick growth and a selection of the right kinds, Snowball, Red Globe, with Milan, Early Forcing, and Jersey Lily for early use.

TOMATOES are grown abundantly and in much variety. Perfection, Rye-croft Glory, Duke of York, and the best of yellow-fruited sorts are prominent. In pots on single stems the plants are grown and in all available sites. It cannot be said that an ideal spot exists at Aldenham for Tomatoes, but the most is made of existing conditions. I noted remarkably heavy crops on plants 4 feet high in 8-inch pots. These were grown sturdily inside until 1 foot high, then placed out of doors to make growth and set a full crop of fruit. In September they were removed to the vinery, where they will give abundant supplies throughout the winter months.

VEGETABLE MARROWS are grown in quantity. White Trailing, Moore's Cream, and Pen-y-byd are the best white-skinned sorts; Perfection and Prince Albert the best green.

LEEKs are now highly prized in a collection in September, and onwards especially. They require much skill to bring them to that perfection seen nowadays. Prizetaker, The Lion, and International are the varieties grown. The seed is sown in January in a gentle heat, pricked off into boxes of rich soil directly the plants are large enough to handle, and are finally planted out in trenches as prepared for Celery, with plenty of manure at their base. Rich food is given to induce them to grow quickly. Blanching is carried out by means of wood boxes filled up gradually with suitable soil.

CELERY is largely grown for all purposes; quite 1,000 roots are required. Aldenham Pink, quite a high-class variety raised here, seems to be all that can be desired in an exhibition Celery, being large, solid, yet crisp and with quite a nutty flavour. Giant White, Standard Bearer, and Major Clark's are also grown. Sowings are made in February and March, the plants treated liberally, yet induced to grow sturdily. It is in this way that large, tender heads are obtained which are not pithy. The rows are not less than 6 feet apart, and the plants 18 inches in the rows. The ordinary soil-blanching is dispensed with in favour of encircling the sticks with coils of stiff brown paper, with the exception of those required for winter and spring use. Blanching with paper enables the plants to be continually fed while this process of six weeks' duration is going on.

BETROOT is often too large at shows, and in that way loses points in competition. The best varieties only are grown at Aldenham, and rich soil is not employed. This crop usually follows the ordinary Celery crop, where the deeply-trenched soil is well suited for the growth of tapering, thongless roots. Perfection and Blood Red are the best long roots; The Globe is the most favoured round variety. The middle of April to the middle of May is chosen for sowing the seed, as too early sowing renders the roots coarse and colourless.

PARSNIPS grow here to an enormous size, yet are quite straight, free from blemish, and of good skin colour. Tender and True, Student, and Hollow Crown are the varieties chosen. The time of sowing is the first week in March on land that has previously been moved deeply. Plenty of space is given for free development of the leaves.

CABBAGES.—The Aldenham Cabbage has always taken a high position in consequence of suitable sorts being chosen and not growing them too strong. Ellam's Dwarf, Flower of Spring, and Winningstadt are the succession varieties grown. The two former are sown the last week in July, and the latter in the month of March. They are sown in boxes in a cold frame. Savoys Al, Earliest of All, and Drumhead are favoured; the seed is sown in the ordinary way at the end of March or early in April. Broccoli receives much attention. Michaelmas White is equal to Autumn Giant Cauliflower, and is superior to Snow's Broccoli. For later supplies The Queen, Leamington, and Model are encouraged. Of Kales there are plenty to choose from. Those that find favour here are Exhibition, Moss Curled, Emerald Isle, and the Welsh.

LETTUCE in abundance is produced. Of Cos forms Paris Green and Hick's Mammoth are favourites. All the Year Round, Little Gem, and Favourite are good forms of Cabbage varieties.

The manner in which the Aldenham vegetables are arranged at shows is universally admired. Those who consider this phase of exhibiting know what an unusual quantity of Parsley is required to obtain such results. Mr. Beckett grows an exceedingly good variety for this purpose—Dobbie's Selected. It is dwarf, finely curled, and of good colour. The seed is sown in boxes in spring, and planted out in rows on a west border when large enough.

E. MOLYNEUX.

BOOKS.

Bulb Culture.—Messrs. Laird and Sinclair, Dundee, have published a booklet called "Bulb Culture: Which to Grow and How to Grow Them." There are some interesting notes about Hyacinths, Daffodils, and Crocuses in bowls, as well as full details about bulb culture out of doors.

Clibran's Foresters' and Planters' Guide contains much information that cannot fail to be of use to those interested in trees and shrubs. It contains a specially written article on "Planting for Profit," by Mr. J. P. Robertson, head forester to the Duke of Devonshire at Chatsworth. This booklet may be obtained free from Clibran's, Altriocham.

Cucumber Growing Under Glass. This is the title of a useful little book on Cucumber culture. The author, Mr. A. A. Fabius, Redlands Nursery, Emsworth, Hants, deals with the subject thoroughly. Sowing the seed, the best soil, making beds, planting, stopping, tying and training, ventilation, watering, top-dressing, &c., are carefully dealt with. In addition to these cultural details there are chapters upon insect pests, the express system of culture, seed Cucumbers, age and vitality of Cucumber seed, &c. A lecture given by Mr. Masse before the Royal Horticultural Society upon "How to Render Cucumbers and Tomatoes Immune Against Fungus Parasites," is reprinted from the Royal Horticultural Society's Journal. As the notes by Mr. Fabius deal chiefly with Cucumber culture for market, Mr. J. Chidlow has written a chapter upon Cucumbers for a private garden. This book may be had from the author post free for thirteen pence.

Calendar of Garden Operations.—An enlarged edition of this useful little book, based

on the original work compiled by the late Sir Joseph Paxton, has been issued from the *Gardeners' Chronicle* office, 41, Wellington Street, Covent Garden. In his preface the editor says: "The scope of this book has been extended so as to serve the requirements, not of the cottager and allotment holder only, but of the amateur generally." A great variety of subjects are dealt with in the 150 pages, the reader is told how to grow everything required for the kitchen garden, fruit garden, flower garden, indoor garden, and what to do in each month of the year. There are many illustrations that will be found a useful addition to the text.

RHODODENDRON AZALEOIDES.

There is a distinct set of *Rhododendrons* characterised by comparatively low stature, bushy habit, and freedom of flowering which are well adapted for massing in the front of shrubberies or for beds on lawns. This set is made up of species, varieties, and hybrids, and the above-named hybrid is one of the number. Apart from being a good garden plant it is interesting from a botanical point of view, as it is one of the few really good hybrids, and probably the first, raised by crossing the deciduous with the evergreen species. It is a very old plant, and has probably been raised in more than one place, as it has been known under a great variety of names, and slight differences occur in both foliage and flowers on different plants. Loudon describes it as having originated about 1820 and being a favourite in collections. Its parents are said to be the North American deciduous species *R. viscosum* and the evergreen *R. maximum* from the same country.

When mature it forms a well-furnished bush 3 feet to 4 feet high and the same through. The leaves are evergreen, and about the size of those of *R. viscosum*. The flowers are borne very freely from the middle of June to the early half of July, and are white, deeply tinged with lilac in colour, and very fragrant.

In some winters it loses a lot of leaves, but is never deciduous. It thrives under the same conditions as other *Rhododendrons*, and always flowers as well as is shown in the illustration. Among its numerous synonyms some of the best known are *odoratum*, *hybridum*, and *fragrans*.

W. DALLIMORE.

GARDENING OF THE WEEK.

FLOWER GARDEN.

CHRISTMAS ROSES.

THE earliest varieties are beginning to show signs of flowering. The surface soil should be pricked over, all weeds, dead leaves, &c., removed. A sprinkling of artificial manure will be helpful, and they should receive a light mulching to prevent the flowers being splashed by heavy rains. A spare frame placed over part of the bed of *Helleborus niger* will serve to keep the flowers clean and of better colour, will also gently force them, and so prolong the season of these useful flowers. It is not wise to close the frame suddenly, and on all fine days air should be freely admitted. It must be borne in mind that the

Hellebores are moisture-loving plants, and that when covered with a frame they will require an occasional watering; for the first few weeks a light damping early on fine afternoons will be beneficial. Failing a spare frame, a few large hand-lights, or even the sides of a fairly large box covered with loose panes of glass may with advantage be used.

VIOLETS.

Continue to remove all runners, weeds, decaying leaves, &c., and when possible hoe between the plants. If a small bed can be covered with a portable frame in the manner advised for Christmas Roses, these will furnish a considerable number of flowers, which will be of value should severe weather set in. The remarks under "Christmas Roses" on watering, ventilating, &c., are also applicable to Violets; but these should be nearer to the glass, so that unless the sides of the frame are unusually shallow it will be necessary to sink them into the ground. When planting the beds in the spring it is a good plan to mark out the size of

but with less robust plants, and those with bulbous or tuberous roots, I prefer to let the foliage remain until all the green, at any rate, has left the leaves.

HELENIUMS.

These most useful perennials have, in common with many allied composites, such as *Rudbeckias*, *Helianthus*, &c., been most showy this autumn. They increase so quickly that it becomes necessary to lift and divide them every second or third year. Where the display is required early in their season, this should be done now; but should it be desired to have the *Heleniums* in flower as late in the year as possible, the work should be deferred until spring. When dividing the exhausted centre of the clump should be discarded, and only the more vigorous growths from the outside be used. *Helenium autumnale* is the kind most frequently seen; its variety *striatum* produces extremely showy flowers. *H. pumilum*, compared with the others, is quite a pigmy; it rarely exceeds 1 foot in height, but its flowers are larger and of a bright yellow. *H. Hoopesii* is rarer than the foregoing;



RHODODENDRON AZALEOIDES AT KEW.

the frame and plant accordingly. By this method the double-flowered Violets may be successfully grown with a minimum of trouble. Of course, during severe weather covering will be necessary.

SPRING BEDDING PLANTS.

Many of the recently planted spring-flowering plants, *Wallflowers* especially, will require periodical waterings unless heavy rains set in. Transplanted *Wallflowers* usually flag considerably under sunshine, and on bright days a sprinkling will check evaporation and materially assist the plants. Slugs are unusually numerous, and any infected plants should be lightly dusted with lime or soot.

HERBACEOUS BORDERS.

The borders and beds are unusually bright for the time of year. Except in a few localities there has been no frost, and even the *Dahlias* are in full bloom. The fullest advantage should be taken of these favourable climatic conditions to ply the hoe freely and frequently in all beds, borders, and the shrubberies, so that the utmost cleanliness may prevail. Many strong herbaceous plants, such as the perennial *Sunflowers*, *Golden Rod*, &c., may be cut down and cleared away;

it grows to about 2 feet in height, and its bright yellow flowers are the largest of the genus. All the species and varieties last well in a cut state.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

FRUIT GARDEN.

HARDY FRUIT.

It is very necessary thoroughly to water any large trees before attempting either to root prune, lift, or replant, owing to the dryness of the soil. Peaches, Nectarines, and Apricots generally receive first attention, and if preparations were made as advised in the calendar of the 1st ult., they will be little the worse for the operation where the work was carried out carefully.

CHERRIES.

Dessert Cherries are also among the first stone fruits to require attention. If growth is too strong the trees should be lifted, or partly so, and replanted, adding a fair quantity of lime rubble and wood ashes, and a well-drained not too rich soil. These Cherries dislike much winter pruning, therefore it is necessary to keep the growth moderately strong by root

pruning and by paying attention to summer pinching, so that little pruning is required in winter. Young trees, which have still much wall space to cover, should have as many shoots laid in as the case may demand and the shoots shortened back to a good wood bud. When selecting young trees for planting from the nursery, choose healthy two year old trees that have not been subjected to severe knife pruning. Good varieties for wall culture are Early Rivers, Frogmore Bigarreau, Governor Wood, May Duke, Black Tartarian, and Bigarreau Napoleon. The distance apart to plant is 16 feet or 18 feet, according to the aspect, east or west, and the natural richness of the soil. Morello Cherries should also have attention in pruning and tying during this month; the work can be carried out more quickly in mild weather than when winter weather sets in.

APPLES AND PEARS.

The lifting, root pruning, and planting of these should follow, and be finished as soon as possible, as autumn is undoubtedly the best time for carrying out the work. The distance apart to plant must be governed by the soil and district. For standards of strong growing varieties, such as Bramley's Seedling, Newton Wonder, and Blenheim, 25 feet to 30 feet apart is none too much. Half standard Plums or other small fruits may be planted between. Large fruiting varieties, such as Warner's King, should have the most sheltered position, or the best fruits are often blown off and spoiled. Put a stout stake to each tree at the time of planting, and mulch them afterwards with light litter. Pyramids or bushes are the most useful form of trees to grow in a restricted garden. Pears on the Quince and Apples on the Paradise stock grow less vigorously, and may be planted 6 feet to 9 feet apart. They come into bearing early, and by careful summer pinching and periodical lifting or root pruning very little winter pruning is necessary. Deep planting must be avoided, the roots should be encouraged to keep near the surface by annual mulchings. By growing trees in this form, gathering and pruning give less trouble, and the vegetable quarters are not unduly shaded.

Impney Gardens, Droitwich.

F. JORDAN.

INDOOR GARDEN.

AZALEAS FOR FORCING.

WITH the great variety of other plants that naturally flower in the autumn it seems unnecessary to ruin the Indian Azaleas, that would render a much better account of themselves as decorative flowering plants during the latter part of January and later. Forcing, to have them in flower by Christmas, causes them to make weak growth, liable to be attacked by thrips. Azaleas of the small-flowered amena type are more suitable for early forcing, and these only should be used for the purpose. They are hardier, and after flowering they will bear rougher treatment; they are also more easily forced into flower. Before placing the plants in strong heat put them for a week or so in a close but low temperature to induce the flower-buds to swell; afterwards they will burst into flower very soon after being placed in heat.

EUPHORBIA JACQUINLEFLORA.

This should not be given a close temperature. It forms flower-buds more freely and makes a shorter-jointed growth in a temperature of 60° at night, with a rise of 5° during the day, air on all occasions being judiciously admitted. These plants do not root vigorously and stimulants are little needed, though weak soot water will impart a good colour to the foliage.

POINSETTIA PULCHERRIMA.

These are usually in small pots, and the soil should be kept moist or the leaves will soon turn yellow and fall off; especially is this true of plants that were propagated late. With a crack of air, a temperature similar to that recommended for Euphorbias, and a little weak soot water the bracts will open freely and maintain a bright colour.

LILIUM HARRISII AND L. LONGIFLORUM.

The bulbs should be potted up immediately to flower during the latter part of April and early in

May. They root freely during the winter, and thrive best in a mixture of lumpy fibrous loam, peat, and a little rough sand. The tips of the growths at this season are frequently attacked by green fly, which soon ruins the prospect of their flowering satisfactorily, and to keep it in check fumigate occasionally with XL All Vaporiser. Liliams of the lancifolium section, the growth of which has died down, should have all the old soil shaken away from the bulbs and again be repotted in a good rich compost consisting of lumpy loam and peat, or leaf-mould, cow manure, and sand. Place the pots containing the bulbs in a cool position where the soil will not dry too quickly, or plunge them in sand until growth begins to start.

J. P. LEADBETTER.

Tranby Croft Gardens, Hull.

KITCHEN GARDEN.

POTATOES.

Now that these are all under cover they should be inspected frequently. If they have been stored when damp diseased tubers are not so easily detected, and if left among sound tubers the latter soon become diseased also. Those intended for the table should be kept dark, and a quantity removed from the pit to meet requirements for a few weeks at a time. Those for seed may be placed on shelves exposed to the light, as they can be looked over frequently. New varieties may be got now, but it is a mistake to have too many sorts. Rather keep to those that are of good flavour and known to do well in the district.

JERUSALEM ARTICHOKE.

Part of this crop at least should be got up and stored in damp sand for use during the winter in case severe frost makes lifting difficult. It is not necessary to lift the whole crop, as they are quite hardy, and are even better left in the ground until spring, when the remainder may be lifted, the ground levelled, and replanting done in one operation. Globe Artichokes, if not already protected, should be attended to without delay. When the protecting material has been placed round the plants, some earth should be sprinkled on to prevent the lighter part of the covering being blown about.

TURNIPS.

These may now all be got up, except the Swede varieties, as they are much improved in flavour if left in the ground till frost comes. Let the crop be stored in a shed or against a north wall or other cool place. The roots should be left intact and the tops shortened to within half an inch of the bulb. A few may be left in the ground for use during the present mild weather. If the Carrot crop has not been lifted, it should be done at once, as these are easily injured by frost.

THOMAS HAY.

Hopetoun House Gardens, South Queensferry.

CORRESPONDENCE.

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

QUALITY IN POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—IN THE GARDEN recently Mr. Egleheart expresses opinions on the above so utterly at variance with the experience of the majority of gardeners that I am tempted to trouble you with a note in reply. I have had no experience with the new varieties. Holborn Abundance, Windsor Castle, and Up-to-Date are quite good enough for me, the average yield is from 8 tons to 12 tons per acre, and we never have the slightest complaint as to quality. Some time ago a quantity of tubers of a French variety were received, and I grew them one season, but they were never asked for again. They were a pronounced yellow in colour and a consistency somewhat like soap. If a good floury Potato is so objectionable, perhaps Mr. Egleheart will explain why it is always in demand? Are ninety-nine out of a hundred palates so much in the

wrong that they do not know a good Potato? For this is practically the outcome of Mr. Egleheart's note. My memory carries me back, so far as Potato culture is concerned, to about the middle of the sixties, and right away from that time, when a white Forty-fold (a selection from the red) and the Scotch Regent were favourites down through the days of Paterson's Victoria, Schoolmaster, and Windsor Castle, the demand in all private establishments, whether large or small, has been for a good white floury Potato. Up-to-Date may be of indifferent quality on some soils. Here it is very good indeed, at least I know if I happen to run out of it and have to buy, the cry from the kitchen is always "Why don't you send the same kind of Potatoes as we have been having?"

Claremont, Esher.

E. L. B.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. G. M. Taylor's object (page 318, THE GARDEN, November 5) cannot, unfortunately, be fully attained by instituting more competitions for cooked Potatoes at our (or any other) particular show. I wish it could. Only by cooking tubers of the same variety from different soils and at various periods can its true merits be learned. We are now getting a plebiscite of the best eating Potatoes, the result of which will appear in our annual report. The forms are now ready, and I shall be happy to send one to anyone who cares to give his opinion, whether a member of the National Potato Society or not. The fact of this being done will show that we are alive to the importance of the matter and doing our best to get reliable information.

Postling, Hythe.

WALTER P. WRIGHT.

DORYANTHES PALMERI AND OFFSETS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In your issue of June 18 (page 435) Mr. E. H. Woodall refers to Doryanthes Palmeri, and asks whether it produces offsets. It does produce offsets, though somewhat sparingly, at all events in Sydney. It is in flower in this garden at the present time. One plant flowered last year with the main flowering stem (covered with bracts) 9 feet long. Towards the end of this axis the flowers branched out. After flowering the axis continued to elongate for another 7 feet or 8 feet, and at the end of this it is now flowering as I have said. This obviously shows that when this plant first flowers the stem should not be cut, but the plant should be given an opportunity of flowering a second time.

J. H. MAIDEN.

Botanic Gardens, Sydney, September 24.

COLOUR IN THE GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The present season will long be remembered for the extraordinary colouring of the autumn foliage. For several years previous to 1902 the rainfall had been much under average, and vegetation, especially forest trees and shrubs, was beginning to suffer; indeed, many fine Beech trees in some parts of the country died, owing to the lack of moisture at the roots. Happily, however, we have no longer any anxiety on this score. We have had a plentiful fall of rain during the past two years, and now we have just passed through one which will be remembered for many years as being one of bountiful crops of all kinds. The outcome of all this is a wonderful colour effect in trees and shrubs. All those mentioned below have been most gorgeous in this country. The Acers are always striking at this season. The first to be noticed is *A. colchicum rubrum*, a valuable tree for various purposes. Next in order comes *A. saccharinum*; this has a little more bronze mixed with the bright yellow. Then we have the Norway Maple (*A. platanoides*), very beautiful at present. Coming to the smaller growing kinds, we cannot pass over *A. Ginnala*. It gives a fine bit of colour, only, however, for a very short time; the leaves soon fall. *A. tataricum* is a similar tree, and has the same fault. *A. rufrum* is magnificent, as fine as any *Coleus* one could find in the greenhouse. *A. palmatum* is

also just beginning to colour finely. So is *A. campestre*, our common hedge species; nothing is finer than this on the Cotswold Hills.

Leaving the Acers, we must mention *Parrotia persica* and the Poison Oak (*Rhus Toxicodendron*), both very rich. *Amelanchier canadensis* is most beautiful. *Rhus Cotinus purpurea* is a lovely tree for autumn effects, and so is *R. Osbeckii*. *Ribes speciosum* is a finely-coloured, low-growing shrub. *Liquidamba styraciflua* colours very beautifully. *Euonymus amurensis* (elata) is perhaps one of the most gorgeous low-growing shrubs one can find at this season. *Cornus Kousa* is fine. *Berberis Thunbergii* is, of course, indispensable for the front of the shrubby border, and *Cotoneaster horizontalis* is another beautiful plant for the front of borders.

These are a few of a very large number of shrubs and trees which at the present season make the countryside full of colour. Why people will continue to plant common Laurels, Box, Privets, and such like things I am unable to understand. True, they serve a very important purpose as screen plants. There is, however, no reason why a few of the above shrubs and trees should not be mixed in with these evergreens.

Cirencester.

T. A.

APPLE RIVAL AND OTHERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 304 of THE GARDEN for the 5th inst. you say that Apple Rival was sent out by Messrs. Cheal. That is a mistake, as it was sent out by Messrs. Clibrao, Altrincham. Messrs. Cheal sent out Armored, Atalanta, and Paroquet; Messrs. Banyard sent out Mrs. Phillimore; and the stock of Hector McDonald has passed into the hands of Messrs. Pearson and Sons, Nottingham, and will be sent out by them next year.

Welford Park, Newbury.

CHARLES ROSS.

APPLE LADY SUDELEY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—My experience of this variety is more favourable than that recorded by Mr. Crook (page 263), and I imagine our amount of moisture is equal to that at Forde Abbey, if not more so. Our trees of this variety are Espaliers, which give us some very fine fruit, and are on the Paradise stock. I had the pleasure of seeing the original tree of this variety in a garden at Petworth. When Messrs. Bunyard purchased the stock it was laden with fruit. This variety requires careful pruning. I wish I could speak as favourable of the other Maidstone Apple. I am not altogether pleased with Allington Pippin.

Poltimore Gardens.

T. H. SLADE.

THE NATIONAL POTATO SOCIETY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—When we are told, on the authority of the Rev. G. H. Engleheart, that Potato Up-to-Date is only fit food for cattle and Sir J. Llewelyn is vapid and tasteless, I am led to wonder whether your correspondent has a suitable soil for Potatoes. Mr. Engleheart really attacks the Potato Society. He ignores the fact that it has not yet been a year in existence and that—apart from the recent show at the Crystal Palace, the primary object of which was to arouse more public interest in the Potato—the society has, at considerable cost, promoted no less than twenty trials of a dozen well-known varieties in diverse parts of the country, first, with a view to test the cropping merits of each variety; and, secondly, to ascertain, so far as possible, what effect diverse soils may have on flavour or table quality in each variety when cooked. Potato growers do know that in the production of flavour or its absence in the tubers soils play a most important part. To ask for varieties of raw Potatoes at a show, to be tested for flavour, would have been absurd; the environment would not admit of any such test. If, as is hoped, a large trial of varieties can be conducted at some central station on the society's behalf another year—say at Wisley or Rothamsted—then the flavour or cooking test may be applied freely. It is not everyone who

knows that in relation to main cropping Potatoes there always has been since 1843 some subtle connexion between high flavour in Potatoes and the disease. We had in Victorias, Regents, Lupstones and some others, varieties of the highest table quality, but they decayed wholesale under the destructive influence of the disease. Under the circumstances that then prevailed we had to obtain real disease-resisting varieties first, and, whilst not one variety resists disease absolutely, very many do materially; hence to have secured such a fine race of Potatoes as now exists and which give us such huge, clean crops is great gain. But even now, the moment we admit into these strains any infusion of the yellow flesh, Ash-leaf, or other weak but good-flavoured varieties, then does disease become very prevalent. At all hazards we must keep a firm hold of what we have so far gained. The booming seen in a limited direction affects very few Potato growers only. The great mass of Potato merchants regard the Potato as an important article of food.

A. DEAN.

HEMEROCALLIS DR. REGEL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. Gumbleton does well to write so favourably of this Day Lily. I grow twelve sorts and consider this much the best of all. The intense golden orange colouring is the great attraction. The six petals vary in width, the three upper ones being 1½ inches wide. The blooms altogether measure from 4 inches to 5 inches in diameter. It has a spike carrying the flowers well above the foliage.

E. M.

POLYGONUM BALDSCHUANICUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I grow this Polygonum in our strong soil with little trouble, but I notice that in a spell of dry weather its leaves quickly droop with hot sun. Directly the roots are well soaked it quickly regains its normal appearance. I therefore now supply the roots liberally with water in dry weather and the plant grows vigorously and flowers profusely. The first year planted I placed a 10-foot pole for its support, and it not only reached the top in a short time but it grew halfway down again. I have lately seen this plant trained up the supports and on the crosspieces of a pergola, but do not think this situation suitable to its growth, which is semi-weeping.

E. M.

LINUM ARBOREUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This pretty yellow Flax, which forms the subject of an interesting note by Mr. S. W. Fitzherbert in THE GARDEN of the 29th ult., is much harder than many suppose, although it does not appear to like a wet winter followed by severe frost in spring. I have seen it doing well and proving quite hardy as far north as Stirling, and I know that it stands the winter of Scotland still further north than that. It is difficult to choose between it and *L. flavum*, but one may well grow both of these pretty plants. So far as I have been able to learn, it is even harder in Scotland than *L. flavum*, and it is certainly much more common, if one may apply that term to a plant which is not too plentiful. As Mr. Fitzherbert remarks, *L. arboresum* rarely produces seeds, but *L. flavum* seeds freely, and self-sown plants are generally plentiful.

Carsethorn, by Dumfries.

S. ARNOTT.

TROPEOLUM AZUREUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In your issue for October 8 your correspondent "J. C." rightly says how seldom does one see the above in our greenhouses, and I may add how seldom does one get the true plant when ordering. We procured two bulbs from a trustworthy seed house in the autumn of 1901, and to our great dismay the following spring both bulbs turned out to be *Tropeolum brachyceras*, a yellow-flowered sort, that grows and blooms abundantly in the open in the south of France I am told. The seedsman in question, upon being told of the disappointment,

kindly offered to replace them the following autumn, which he did, after telling the Continental firm who supplied the first bulbs that they were not true to name. This latter firm sent two more tubers to our seedsman, and when they flowered this spring both turned out to be *Tropeolum brachyceras* as before, which, I need not say, was both disappointing as well as annoying. This autumn we have received two more tubers from the same source, as well as a pair from another firm, and hope to be able to chronicle better results after a third trial. I have also been told by a famous lady gardener that it is most difficult to get this *Tropeolum* true. As it is a weak grower, and slow of increase, this may partly account for inferior sorts being substituted. There is little to add to the treatment "J. C." advocates, except that as soon as growth begins thin twiggy pieces of Birch, or similar wood, be placed in the pot for the slender trailing shoots to cling to, or pieces of trellis trained near to the glass roof. This they soon take to, and show their flowers to great advantage. *T. tricolorum* grows very much stronger, reaching 15 feet or more. One small item should not be overlooked, and that is to keep a sharp look out for slugs and snails when growth commences or they will quickly devour the lot. Red spider appears their greatest enemy while in active growth, and we find light dewing overhead with the syringe morning and evening to be beneficial to the plants. Repotting should be done in July, before growth commences, or many are liable to get broken. A little weak manure water may be given from January onwards.

J. MAYNE.

SALVIA HORMINUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—*Salvia Horminum*, a native of the Mediterranean region, well merits the praise meted out to it by Mr. J. Crook on page 262. This year it was seen in good form at Castle Drummond, Perthshire, and Powerscourt, County Wicklow; it is there massed by hundreds in the flower gardens. On dry banks, in warm situations, it may be easily naturalised, self-sown seed springing freely. Around Edinburgh it occurs as a casual. I also saw this annual at M. Correvon's establishment at Geneva, where, together with *Coris mouspeliensis*, several species of *Vernonia*, and other interesting plants, it gave a good bit of colour in the fall of the year, as rough weather was setting in.

The coloured bracts, rather than the flowers, are the attractive portion of this *Salvia*, and as these remain in good condition over a considerable period it is desirable to get them on early. By sowing in heat in February or March good plants will be ready at the end of May for setting out at 8 inches apart. In the open sown in April. Plants gathered in their southern home are from 9 inches to 16 inches in height, the shoots terminating with six to a dozen bracts, each measuring from half an inch to 1 inch long. Under cultivation the bracts are much larger. The typical *Salvia Horminum* has purple bracts, but a form exists with red ones, and in another they are white. Does anyone in this country grow these two?

D. S. FISHER.

Royal Botanic Garden, Edinburgh.

POTATO AND WHEAT CROPS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Although only a farmer I take THE GARDEN, and I garden usually much more than 100 acres of Potatoes and more than that of Wheat; and, when I read the opinion of such men as Mr. A. D. Hall and Mr. E. Molyneux, I stand aghast, thinking that if others can make £12 and £35 per acre of Wheat and Potatoes respectively there must be something wrong in my management. I know of many abnormal prices when either of the articles are of a special kind or grown for seed, but over vast areas I am inclined to think that Mr. Hall's figures should be just halved, and £6 and £17 10s. would then be nearer the price that has been made the last few years. Prices of Wheat have, of course, been a little better lately, but 4¼s. have not been grown nor 28s. been made on the average of the last few years. When, also, I see letters

and articles advising the eating Potatoes ("ware" we call them) to be carefully placed on the latticed shelves of the Potato houses we see in large gardens, I then think that gardeners do not know what good tubers are like, for I assure you they will not retain their quality if kept out of the pits more than a fortnight or so. The advice, too, that the diseased haulms ought to and must be burned is no doubt very good, or sounds so; but, given suitable weather and a tender variety of Potato, the all-pervading countless myriads of spores will attack the leaves, resulting in the present sad condition of the Up-to-Dates, which were smitten at the same period of warmth and moisture that sprouted sadly our Wheat and Barley in the stook. The very best Potato farmer on the very best Potato farm in the kingdom, when I saw it, was feeding 180 hullocks, and every morsel of haulm was saved for them to tread into manure for the next Potato crop. And no one grows sounder tubers.

The great Potato show at the Crystal Palace is no earthly use if held when everybody is taking up their tubers and no one knows how this or that sort has yielded or withstood the disease. If the society could take the minor hall at the Smithfield Show we should all put in an appearance, and we might then buy a few pounds of one boomed variety or 100 toos of another.

NORTH LINDSEY.

NURSERY GARDENS.

MESSRS. W. WELLS AND CO.'S
CHRYSANTHEMUMS.

MESSRS. W. WELLS AND CO.'S large double-span greenhouse, 126 feet in length by 54 feet in width, is at the time of writing one of the finest sights within easy distance of the great Metropolis. The collection of Chrysanthemums is a remarkably comprehensive one, and the blooms of all the season's novelties are always produced in such a way as to enable the connoisseur to form a pretty accurate judgment of their capabilities in the future.

Novelties abound, many of them Continental, many of them home-grown seedlings, and others from our distant Australasian Colonies. There are some excellent examples of recent additions, which have proved worthy of a second, or even third, year's trial. Among them we note a fine batch of noble blooms of General Hutton, a grand Japanese of unusual dimensions, deep golden yellow, slightly tinted bronze. Miss Elsie Fulton is a noble white, already well known to the grower for show; and the more recent Mrs. J. Dunn is also conspicuous in a number of capital examples. Rich and attractive is W. R. Church, a massive broad-petalled Japanese that needs no recommendation, as its peculiar shade of crimson makes it everywhere an effective variety. William Duckham is a deep solid-looking variety with incurved florets, colour silvery pink; and other shades of varying intensity in this colour are represented by such varieties as Mrs. George Mileham, Mrs. Barkley, Countess Harrowby, &c. Among the very biggest is Mrs. White Popham, pale purple; and hard by is Florence Penford, a big Japanese with grooved florets, globular in form and deep in build, colour pale buff. Mrs. W. Koox, a fine deeply-huilt flower, close and compact, with intermingling florets, colour pure pale yellow, is also worthy of note. Miss Mildred Ware is now well known, and maintains its reputation for size and colour wherever we have seen it. Very fine are the noble examples of Mme. Paolo Radaelli, pale blush pink, a big solid flower peculiarly useful on the show-board. Mrs. Henry Weeks, Mme. Ferlat, and Miss Stopford are among some of the best of the whites.

Yellow is essentially the primary colour of our famous flower from the Far East, and, indeed, it is the colour most esteemed by the Chrysanthemum specialists of the Celestial Empire. A Chinese author, who wrote about Chrysanthemums in 1783, tells us that this colour is more highly appreciated than the others, and in his descriptive list he places the yellow kinds first. At Merstham among

the yellow varieties are many examples of the best novelties of recent introduction, the most striking and effective being Colonel Weatherall, Merstham Yellow, Mand du Cros, Chelton, the yellow sport from Miss Nellie Pockett, and another, a sport from Miss Elsie Fulton called Souvenir de Mme. Buron. Mrs. W. Duckham is also a grandly-built globular flower with medium-sized florets, in which the body colour is slightly tinted carmine. Bessie Godfrey has been seen everywhere in good form this season, and is certainly one of the finest in its form and shade, while Calvat's grand seedling, named after that champion grower Mr. F. S. Vallis, is one of the most popular of its kind.

A few others of various tones occur to us as worthy of a brief mention. They are Mrs. F. W. Vallis, which has long drooping florets, colour crimson, shaded apricot yellow, reverse old gold; Heury Perkins, a large bloom of great depth, florets long and drooping, colour bright red-crimson, reverse golden; W. A. Etherington, also of great size and of excellent form, colour flesh pink, shaded mauve; Leila Filkins, fine blooms of very deep build, close and compact, the florets intermingling, soft pinkish lilac-mauve.

Novelties of much more recent introduction abound, but our space will only allow of the most superficial mention, as they would form a sufficient



MR. GEORGE DINGWALL.

theme for a special article to themselves. Of these we like Valerie Greenham, a fine seedling of English origin, with medium-sized florets, colour lilac-mauve; Dora Stevens, long drooping florets curly at the tips, bright shade of rosy amaranth with straw reverse; Mrs. H. W. Partridge, florets of medium size, colour rich fiery crimson, old gold reverse; Hettie Wedge, Japanese, with florets grooved and incurving, colour lovely shade of golden amber; J. H. Doyle, the colour of this may be described as a salmon cerise with golden reverse, big fine blooms with long florets; Mrs. George Heaume, a fine novelty, globular and deep in build, the florets are of medium width, colour golden buff; E. J. Brooks has rather broad florets, blooms big and solid, plum-coloured amaranth; Mrs. J. E. Dunne, a grand flower of great size, florets long and drooping, colour salmon rose, passing to golden buff in the centre. C. H. P.

A WELL-KNOWN SCOTCH GARDENER.

MR. GEORGE DINGWALL.

IN the course of this month Mr. George Dingwall, head gardener and forester to the Right Hon. Sir Henry Campbell-Bannerman, G.C.B., at Belmont

Castle, Meigs, N.B., leaves Belmont after a long period of service. Mr. Dingwall is a native of Ross-shire, and served his apprenticeship at New Tarbatt House, Parkhill, in that county, under the late Mr. James Laing, brother of the late Mr. John Laing of Stanstead Park, London, and, as Mr. Dingwall remarks, one of the best all-round gardeners he ever knew. In 1857 Mr. Dingwall left for the Lothians, where he was a journeyman for two years. In 1859 he went to East Bank Gardens as foreman, remaining there until November, 1860, when he left to enter upon his first appointment as head gardener. This was with Mr. John Hall Maxwell, C.B., Dargavell House, Renfrewshire. In 1863 Mr. Dingwall entered upon a similar appointment with Mr. G. Kelly McCallum, Braco Castle, Braco, Perthshire, where he remained until 1869, when he was appointed gardener to Mr. G. Stirling Home Drummond at Ardoch House, Braco. At Ardoch Mr. Dingwall laid out the gardens anew and made a new flower garden. To the successful carrying out of these works Mr. Dingwall largely attributes his securing his next appointment in 1886—that of gardener and forester to Sir Henry Campbell-Bannerman, who had recently purchased the estate of Belmont, Meigs. At Belmont Mr. Dingwall remodelled the whole of the gardens and grounds, and carried out the important works which have made Belmont such a beautiful and well-kept property. Mr. Dingwall has purchased a property at Newtyle, not far from Belmont Castle, where, it is to be hoped, he may long be spared to work. He does not intend to relinquish horticulture entirely, however, as he means to devote a part of his time to seed-growing. Some of his strains are already well known for their excellence, and he purposes to enter still more largely into seed-growing, as he has a greater demand for his stocks than he can meet. Mr. Dingwall is a most able all-round gardener, and the gardens at Belmont Castle show the evidences of high cultivation in every department. He takes great pleasure in landscape gardening, for which he has a special aptitude, and he has contributed papers of great ability upon this subject to meetings of such horticultural associations as that of Dundee, where he lectured last year. He has also frequently acted as judge at flower shows, where his services were highly esteemed. Among his other acquirements is that of basket-making, and he has taken prizes at industrial exhibitions for his handiwork of this kind, which is exquisitely done. He is a keen antiquarian, and a man full of interesting information on many other matters besides those connected with his calling.

S. ARNOTT.

SOCIETIES.

REDHILL, REIGATE, AND DISTRICT GARDENERS' ASSOCIATION.

THIS society held its fortnightly meeting on Tuesday, the 25th ult., in St. Matthew's School, under the presidency of Mr. W. P. Bond, when a most interesting paper was read by Mr. C. J. Salter of the Gardens, Woodhatch Lodge, Reigate, on the "Zonal Pelargonium and its Culture." As usual there was a very large attendance, over 100 members being present. That the lecturer was thoroughly at home with his subject there was no doubt, judging by the very able manner in which he dealt with it. The introduction of the zonal Pelargonium was briefly touched upon; then followed notes upon striking the cuttings, potting, soil, temperatures, and the best houses. Many members took part in the discussion which followed. A hearty vote of thanks was accorded the lecturer, which brought the meeting to a close. F. C. L.

DULWICH CHRYSANTHEMUM SOCIETY.

THE eleventh annual exhibition of the Dulwich Chrysanthemum Society took place on the 8th and 9th inst. The society is in a most flourishing condition. The initiation of a summer show of Sweet Peas, &c., and the remarkable support given to it, especially by the amateur members, points to increasing interest in the neighbourhood. A capital programme of lectures for the winter session has been arranged. The first, by Mr. R. E. Leach, on "Begonias," on Tuesday, October 18, was of a most interesting character, the various stages of Begonia culture, from the initial difficulties of seed fertilisation to the finished and dried-off tubers, were practically and minutely described. The peculiarities of various types were referred to. The hearers were greatly interested and instructed, and the questions which followed the paper were answered in a manner which can only come from a life-long intimacy with the subject.

Later papers on "Sweet Peas," by Mr. C. H. Curtiss; "Horticulture in Canada," with lantern, by Mr. Cheal; "Members and their Gardens," &c., are included in the programme.

SOUTHAMPTON ROYAL HORTICULTURAL SOCIETY.

"BETTER than ever" was the universal verdict in connexion with the exhibition of Chrysanthemums and autumn fruit held by the above society on the 2nd and 3rd inst., in the spacious building known as the Skating Rink, the entries being at least 100 in excess of any previous year. The large hall, 130 feet by 90 feet, proved hardly large enough, and it taxed the ingenuity of the secretary to provide space for all the exhibits.

There was a slight falling off in the number of cut blooms, but the plants made a much more imposing array than usual. The best collection of Chrysanthemums in pots was shown by Mr. C. Hosey, gardener to J. C. E. D'Esterre, Esq., Elmfield, Southampton, his group being well arranged, and most of the blooms were fit for any exhibition board, the plants ranging from 18 inches in the front to 6 feet at the back. The same exhibitor secured the first for four plants suitable for conservatory decoration. Mr. B. Henley, florist, of Woolston, being second in the first-named; and Mr. C. Dymott, florist, Millbrook Road, in the latter. Some immense bush plants were shown, Mr. Dymott being first, and Mr. Hosey second. Two more competed in each of the above. The amateurs' groups were also very good, Mr. E. Chandler winning the first prize, in addition to a silver medal and the Mazawattee Challenge Cup.

The five mixed groups, Chrysanthemums arranged with other flowering and foliage plants, were the best ever seen at the autumn shows. The first, exhibited by Mr. E. Willis, Winchester Road Nurseries; and the second, put up by Mr. T. Hall, gardener to Sir Samuel Montagu, Bart., South Stoneham House, being especially bright and effectively arranged; third, Mrs. Ubdell.

CUT BLOOMS.

This section comprised 130 vases, three to five blooms in each and about 400 blooms on boards. In the principal class, thirty-six Japanese, twelve varieties, in vases, Mr. George Hall, gardener to the Dowager Lady Ashburton, Milchet Court, was placed first, thus winning the Victorian Challenge Trophy for the fourth time in succession. His collection contained some very fine blooms, remarkable for their freshness. The best were Bessie Godfrey (premier bloom in the show), Miss M. Ware, Mme. P. Radaelli, G. Mileham, J. Dunn, and F. S. Vallis. Second prize went to Mr. B. Hollis, gardener to Major Chichester, Embly Park, Romsey; third, Mr. L. Dawes, gardener to Mrs. Ogilvie Hambleton.

For six white Japanese, two varieties, Mr. George Hall was first, with Mrs. J. Lewis and Mme. C. Nagelmaker; Mr. L. Dawes being a close second, with Mme. G. Henry and Miss A. Byran; the third going to a very successful amateur at this show, Mr. F. Chandler.

For six Japanese, any other colour, two varieties, Mr. G. Hall was again first with grand blooms of Bessie Godfrey and F. Vallis; Mr. B. Hollis securing second. Six others competed.

In the class for eighteen blooms, not more than three of a variety, Mr. H. Pearce, gardener to Mrs. Tragett, Awbridge Dunes, Romsey, was first, with flowers very little behind the first in the cup class, the best being F. S. Vallis, Ethel Fitzroy, Mrs. E. Mitcham, and Mrs. J. Lewis; second, Mr. A. J. Marsh, gardener to M. Hodgson, Esq., Morton House, Kingsworthy, who had some wonderful blooms of Sensation and Exmouth Rival; third, Mr. F. Chandler; and fourth, H. E. Sugden, Esq.

Incurved flowers were not largely shown, but those from the gardens of M. Hodgson, Esq., were very fine both in the vase and board classes, including C. H. Curtis (premier incurved in the show), Baron Hirsch, Mme. D. Marnel, Miss V. Foster, Paton Ralli, Edith Hughes, and Mme. Zerlat. The amateur vase classes were very meritorious, Mr. Chandler and Mr. Love, of Cowes, showing the best blooms.

In the class for two vases, single Chrysanthemums, Mr. George Elwood, gardener to W. H. Myers, Esq., Swanmore Park, secured first, with an effective arrangement; Major Chichester being second. Five others competed.

The exhibits in the class for twenty-four blooms were not so numerous as usual, but the three stands put up were all good. Mr. George Hall, Milchet Court Gardens, secured first prize. The following were very fine blooms: Bessie Godfrey, Mme. Nagelmaker, Mrs. H. Weeks, George Penford, Beauty of Leigh, J. S. Silsbury (grand), Ethel Fitzroy, and Countess of Hassorby. Second prize, Major Chichester; third, Mrs. Ogilvie.

There were several classes for twelve blooms of Japanese and one for incurved, the following being most successful: Lady Ashburton, Major Chichester, Mrs. Ogilvie, and M. Hodgson, Esq. There was also some strong competitions in the classes open to amateurs and cottagers, the most successful being Mr. F. Chandler and Mr. J. Love. The first-named also secured the subscription challenge cup.

MISCELLANEOUS DIVISION

Palms, table plants, and Begonias were all shown well, the last-named making a very bright display.

Bouquets were more than usually numerous. Those from Messrs. Perkins and Sons, Coventry, were very beautiful, composed almost entirely of Orchids, and easily secured the first prize both for ball and bridal.

For table decoration (Orchid excluded), Mr. George Elwood, Swanmore Park Gardens, was deservedly first, with a pretty arrangement of single Chrysanthemums, sprays of Ampelopsis, Veitchi, &c.

FRUIT.

The wonderful display of fruit was, no doubt, the special feature, comprising eighty bunches of Grapes and nearly 700 dishes of Apples and Pears, and the whole, with the exception of two trade exhibits, were the produce of the home county. As Mr. Challis, one of the Judges, remarked at the luncheon, "it was doubtful whether any other county in England could produce such a display as they had seen that day; certainly not with Grapes, and the wealth of colour on the Apples was remarkable."

For three varieties of Grapes, Mr. W. Mitchell, gardener to J. W. Fleming, Esq., Chilworth Manor, was first with fine

bunches of Mrs. Pince, Muscat of Alexandria, and Black Alicante; Mr. O. Eastwell, gardener to L. Walker-Munro, Esq., Rhinefield, Brockenhurst, was second with bunches only a point or two behind, showing Alwhick Seedling, Muscats, and Lady Downe. Three others competed.

In the class for two bunches of Black Alicante, Mr. Eastwell was placed first with a beautifully finished bunch of medium size, Mr. Bowerman, gardener to Lord Bolton, Hackwood Park, being second, and Mr. J. Hughes, gardener to A. P. Ralli, Esq., Twyford Lodge, third. There were five other competitors.

For two bunches, any other variety, Mr. Fleming was an easy first. For two bunches of white the prizes were awarded in the same order as in the three varieties. The best single bunch of white was shown by J. W. Fleming, Esq., and the best single bunch of black by A. P. Ralli, Esq.

For four dishes of dessert Apples there were twenty-one entries, the first prize going to Mr. T. Hall, gardener to the president, Sir Samuel Montagu, with King of Pippins, Ribston, Allington, and Cox's Orange Pippin, the second and third going to Mrs. Austen Thickett, Bishop's Waltham, and W. H. Myers, Esq. There were several other classes.

Pears were represented by nearly sixty dishes. In the class for four dishes, Major Chichester was placed first with Marie Louise, Beurre Diel, President, and Ormanville, and also took first for a single dish with Pitmiston Duchess. Sir Samuel Montagu was second in the former, and Lord Bolton in the latter.

VEGETABLES.

We always expect to see good vegetables at Southampton, and were in no way disappointed on this occasion, the whole of the twenty collections staged being of excellent quality. In the society's open class Mrs. Tragett was placed first, Mrs. Maitly second, and H. E. Sugden, Esq. (gardener, Mr. W. Valentine), third. Mr. H. Lee of Gosport had the best collection in the amateurs' and cottagers' class. For Messrs. Toogood and Sons' and Messrs. Carter and Co.'s special prizes Mr. Bowerman, gardener to Lord Bolton, Hackwood Park, staged grand specimens, and secured first in each class, Mr. Elwood, Swanmore Park Gardens, being second for the former, only a point or two behind Mr. Bowerman; A. Searl, Esq., Bassett, being second in Carter's class.

Messrs. Toogood and Sons, the King's seedsmen, Southampton, presented the following medals: Silver medal for the best collection of vegetables in the show, exhibited by a gentleman's gardener. Won by Lord Bolton. Silver medal for the best collection of vegetables in the show, exhibited by an amateur. Won by Mr. H. Lee. Silver medal for the best collection of vegetables in the show, exhibited by a cottager. Won by Mr. H. Broom. Silver medal for the best Carrot in the show. Won by W. H. Myers, Esq.

NON-COMPETITIVE EXHIBITS.

Amongst these we must give pride of place to the magnificent collection of fruit exhibited by J. W. Fleming, Esq. These were artistically arranged by Mr. Mitchell with small plants and coloured foliage. Mr. Mitchell staged, in addition to the fruit, a splendid collection of vegetables, consisting of twelve varieties. Sir Samuel Montagu, Bart. (gardener, Mr. T. Hall), also staged sixty dishes of fruit, for which he was awarded the society's silver medal.

Sir S. Montagu and W. Garton, Esq., Roseland, Woolston (gardener, Mr. J. Martin), each lent a large number of Palms and other decorative plants, which added greatly to the general effect of the show, for which they were accorded a vote of thanks.

The following also contributed extra exhibits: Messrs. Toogood and Sons, Southampton, Potatoes, bulbs, &c. (silver-gilt medal). W. H. Rogers and Sons, Limited, Red Lodge Nurseries, collection of fruit, &c. (certificate of merit). B. Laddams, Limited, Shirley Nurseries, perpetual Pinks, hardy plants, flowers, &c. (certificate of merit). Jarman and Co., Chard, Somerset, sixty dishes of fruit, &c. (certificate of merit). P. H. Cousins, fruit grower, Swanwick, Southampton, fifty dishes of fruit, &c. (certificate of merit). Charles W. Bredmore, seedsman, Winchester, fruit, Potatoes, and cut flowers (certificate of merit). J. Peed and Sons, Roupel Park Nurseries, Norwood, collection of fruit (certificate of merit). E. Willis, Winchester Road Nurseries, floral devices (certificate of merit), miscellaneous exhibit. C. Dymott, Freemantle Nurseries, Southampton, group of Chrysanthemums (highly commended). T. Tyler, Waterloo Nurseries, Freemantle, Begonias, Ferns, &c. (vote of thanks). W. Wells and Co., Limited, Earlswood, Redhill, Chrysanthemum novelties (certificate of merit). E. Cozens, Rowhams, Dahlias (vote of thanks). A. Maple, Nursling, miscellaneous exhibit (vote of thanks). H. Longster and Co., Southampton, miscellaneous exhibit. W. Palmer, Andover Nurseries, new seedling Apple, new double Primula. R. S. Ekliss, Esq., Bittern Park, Apples (award of merit for new seedling Apple). Perkins and Sons, Coventry, standard cross (very highly commended). J. Ambrose, F.R.H.S., Cheshunt, Herts, black Grane Melton C. mstable (first-class certificate), and Beckwith's Carnations, which attracted much attention.

AT THE LUNCHEON

Mr. Challis said, in congratulating the council on the show, "I also congratulate your secretary on the excellence of the arrangements. I am in the habit of visiting many shows, but nowhere do I find such completeness and method as I find at Southampton."

CARDIFF SHOW.

THE annual autumn display was held, as usual, on the 2nd and 3rd inst. in the Park Hall, which was taxed to its utmost to contain the exhibits entered. It was a grand display, and reflected much credit on all concerned, especially Mr. H. Gillett, the energetic secretary, who had all the arrangements well in hand. Cut blooms were a strong feature. The leading class was for eight vases of Japanese varieties, three blooms in each. The Thomas Andrews Challenge Cup, with a liberal cash prize, was offered in this class. Mr. W. Drake, 44, Cathays Terrace, Cardiff, was again successful,

securing the coveted award with handsome blooms of the following varieties: Mme. Paolo Radaelli, Bessie Godfrey, Mrs. J. Lewis, Mrs. F. W. Vallis, and Henry Perkins as the leading blooms. Mr. John Duff, gardener to Mrs. Wilkins, Bryn Glas, Newport, was second with heavy blooms; Mr. W. Iggulden, Frome, a close third. No fewer than ten competed for twelve Japanese. Mr. Duff was here successful with heavy, richly-coloured blooms of popular sorts; Mr. Iggulden was a close second. Mr. Drake had the best stand of twenty-four incurved, large, neatly-finished examples of popular sorts; Mr. Bible, gardener to Prince Hatzfeldt, Draycot Park, Chippingham, second.

Mr. Allen, Penarth, won the Curtis Cup for twenty-four Japanese, while Mr. A. F. Hill easily won premier honours for twelve Japanese, and in a similar class for the Empire Challenge Cup Mr. Hill asserted his superiority quite easily, as well as for six, any variety other than white, with really fine examples of Mme. Paolo Radaelli. Single-flowered kinds were well shown in six varieties in vases by Mr. T. Bindon, gardener to Dr. T. Wallace, Cardiff.

Bouquets and wreaths were extremely fine, Mr. W. Treseder, Cardiff, securing most of the prizes. Mr. Bindon had the best trained plants, as well as those naturally grown. Messrs. G. Williams and Son had the best Chrysanthemum group.

Orchids were well shown by Mr. C. Brooke, gardener to — Gratte, Esq., 83, Commercial Road, Newport, and Mr. W. Carpenter, gardener to J. Buckley, Esq., the former winning for six, and the latter for three specimens. Gold medals were awarded to Mr. Bisham for a collection of fruit, and to Mr. W. Treseder for Dahlias; and a silver medal to Messrs. Cypher for Orchids.

WINDSOR CHRYSANTHEMUM SHOW.

AS usual, the annual autumn show was held in the Albert Institute on the 4th inst., and was quite a success. The leading class for cut blooms was that for twelve Japanese and twelve incurved; three competed for the silver challenge cup offered. Mr. G. Lane, gardener to Miss Ridge, Englefield Green, was the winner with heavy Japanese and good incurved blooms, all well displayed. Mr. J. Minty, gardener to Sir D. Gooch, Clewer Park, Windsor, was second.

Japanese blooms, arranged in a space of 5 feet by 3 feet, received four entries. Mr. Heaver, gardener to Miss E. Goodlake, Denham, was first with fine blooms, but lacking in arrangement; second, Mr. Lane. Incurved sorts were best shown by Mr. Lane, who won for two dozen blooms in eighteen varieties, and also for six, any one sort, with typical examples of C. H. Curtis.

Six blooms, any one Japanese variety, were strongly represented. Mr. J. Elkington, gardener to Owen Tudor, Esq., Old Windsor, was first with Bessie Godfrey in grand condition; second, Mr. Minty, with Duchess of Sutherland in true character.

Twelve Japanese blooms, arranged in a basket or vase, were asked for, and brought a good entry. Mr. H. Hearn was first with well-built flowers of popular varieties. Single-flowered kinds were best staged by Mr. W. Cole.

Mr. Page of the Dropmore Gardens, Maidenhead, was a successful exhibitor.

The best group of Chrysanthemums was arranged by Mr. W. Cole, gardener to Miss E. B. Foster, Clewer Maor. Mr. Lane had the best group of miscellaneous plants.

HEREFORD FRUIT AND CHRYSANTHEMUM SOCIETY.

WITH respect to Apples, at least, the show held on the 2nd and 3rd inst. in the Shire Hall was a record one for Hereford, on no previous occasion have the classes been so well filled with fruit so generally excellent in every way. Grapes were remarkably good, especially the Lady Downe's Seedling staged by Mr. Grindrod. Pears, vegetables, and Chrysanthemums were also shown in good condition. All available space in the hall and the ante-rooms was occupied by the exhibits. The arrangements were perfect, but must have taxed the powers of even the able secretary, Mr. E. S. Jones.

Pears, twenty four dishes: There were two exhibitors in this class, the leading collection coming from Mr. Humphries, gardener to the Earl of Chesterfield, Holm Lacey; Mr. Jones, gardener to H. L. Lutwyche, Esq., Kynaston, was second. Dessert Pear, twelve dishes: Here, Mr. W. C. Hyde, gardener to W. Masynar, Esq., Holt, Ledbury, took the lead; Mrs. Bashill, Bridge Sollars, Hereford, followed closely. For eight dishes there were nine exhibitors. Here Mr. Foster, gardener to the Rev. H. Brierley, Bridston, was placed first with capital fruits; Mr. Grindrod was a good second.

Apples, fifty dishes, not more than twelve, or less than five fruits in each dish: There was very keen competition in this class, in which six exhibitors staged very fine collections. Mr. Watkins, Pomond Farm, Withington, was placed first, and had the largest and slightly the best coloured fruit, though his rivals, the King's Acre Nursery Company and Mr. Whiting of Credenhill, who were respectively placed second and third, followed very closely, each staging splendidly grown examples of the best varieties; Mr. Roe, gardener to E. W. Caddick, Esq., Caradoc Ross, was awarded an extra prize. Mr. Grindrod, gardener to G. T. Bates, Esq., Whitfield, Hereford, was the leading exhibitor of thirty dishes, and arranged a good selection. The second place was taken by Mr. W. E. Hyde.

Twelve culinary and twelve dessert varieties attracted six exhibitors, whose collections were of an even character. Mr. W. Jones, gardener to C. W. Hazelhurst, Esq., Moreton Court, was placed first; Mr. Wootton, Byford, and Mrs. Bashill were respectively placed second and third. The class for eight dishes of dessert varieties was closely contested by eleven exhibitors, among whom Mr. J. E. Jones secured chief honours; second, T. Llanwam, Esq., and third, Mrs. Bashill.

Dessert Apples, Cox's Orange Pippin, was shown twenty times, Mr. Roe being first with large brilliant fruit; second, Messrs. Campbell and Gettings. Ribston Pippin was best shown by Mr. Watkins, followed by Messrs. Campbell and

Gettings amongst eighteen dishes. Messrs. Pewtress Brothers won with Blenheim Orange, and Mr. W. E. Hyde was second, thirteen dishes being staged. Amongst eighteen rivals Mr. C. Thomas led with King of the Pippins, Mr. Hyde being second. C. W. Radcliffe Cook, Esq., was placed first, with Worcester Pearmain, followed by Mr. Watkins among seventeen exhibits.

Kitchen Apples, Bramley's Seedling, brought Mr. Thomas again to the front, with Mr. Watkins following, while Messrs. Campbell and Gettings and Mr. Thomas were respectively first and second amongst nineteen exhibitors, with Lane's Prince Albert. There were fourteen entries for Peasgood's Nonsuch, the leading position being taken by Mr. Grindrod, and the second by Mrs. Bashill. Thirteen dishes of Newton Wonder were shown, Messrs. Roe and Grindrod taking respectively first and second places with grand dishes. For any new Apple introduced during the last seven years, seven dishes were staged, Mr. Whiting being first with King's Acre Pippin; Mr. Watkins second, with Lord Hindlip; and Mr. Roe third, with Caradoc Scarlet.

Pears: Nine dishes of Marie Louise were staged, the best coming from Mrs. Bashill. Mr. Humphries was a good first with Doyenne du Comice. Ten dishes of Pitmaston Duchess were shown, the Rev. G. H. Davenport, Foxley (gardener, Mr. Cume), being placed first.

Champion classes: For the best bunch of Grapes Mr. Grindrod won with a remarkably fine one of Lady Downe's Seedling. Rarely is this Grape seen in such grand condition. Dish of dessert Apples: Mr. Roe was deservedly awarded the prize with splendid fruits of Cox's Orange Pippin. Dish of culinary Apples: Mr. C. Thomas, with a perfect one of Bismark, was the winner. Mr. Powell, Warham Farm, had the best dish of Cider Apples, and staged Kingston Black.

Collection of fruit, six dishes: Here Mr. Grindrod won an easy first: Mr. Froggatt, gardener to J. Walker, Esq., Belmont, was placed second, and J. Corner, Esq. (gardener, Mr. Williams) third. Five excellent entries were staged in a class for Gros Colmar Grapes, Mr. Tanott, gardener to A. W. Foster, Brackhampton, being first; Mr. Talbot, gardener to Sir G. Cornwall, Moccas Court, second.

Prizes offered by Mr. Wilson, seedsman, Commercial Street, Hereford, for a collection of ten varieties of vegetables. This class was keenly contested, and Onions, Potatoes, Leeks, Celery, Carrots, Parsnips, Beetroot, Cauliflower, Tomatoes, &c., were splendidly staged, Mr. Grindrod being the leading exhibitor.

The only group of miscellaneous plants, which was an exceedingly creditable display, was arranged by Mr. Cox, gardener to Sir J. Cotterell, Garbons. Mr. C. Whiting, White Cross Nursery, Hereford, was the leading exhibitor, with a group of Chrysanthemums. The leading exhibitors of vases and other blooms of Chrysanthemums being Mr. Sampson, gardener to Mrs. Hope, Whitney Court, Mr. Humphries, and Mr. Tanott.

READING AND DISTRICT GARDENERS' ASSOCIATION.

"THE Naturalisation of Plants and Bulbs on Grass" was the title of a paper read by Mr. G. Stanton of Park Place, Henley-on-Thames, before a large attendance of members. The president, Mr. Leonard Sutton, presided. Mr. Stanton in his opening remarks referred to the charm imparted to the half-kept pleasure grounds, woodland walks, and the nooks and corners that abound in most gardens by the naturalisation of plants and bulbs. He credited Mr. William Robinson as having done more for this movement than anyone in the country. In commencing this style of gardening, lessons should be drawn from the way some of our wild flowers cluster together in shade, partial shade, open positions, dry and moist situations. The most suitable plants for various positions were recommended, such as coloured Primroses, Polyanthuses, Violets, Foxgloves, Hellebores, German Irises, Dorotheas, Forget-me-nots, Yuccas, Spiraeas, &c. As to bulbs, much thought and care should be devoted to selecting the best and most suitable positions. Daffodils were specially recommended, and the varieties most adapted for the work were named. Different methods of planting were explained at some length. In conclusion the lecturer said that we were much indebted to the great natural garden at Kew for many lessons and much valuable information on the subject. A good discussion followed, in which the president, the Rev. Canon Fowler, and Messrs. Barnev, Powell, Tunbridge, Howlett, Neve, Dore, Cox, and Lever took part.

The exhibits were of exceptional merit. Mr. F. Bright, The Gardens, Whiteknights, staged a remarkable exhibit of Sutton's Discovery Potato, namely, 52lb., which he had produced from one tuber 1oz. in weight. Mr. W. Wilson, The Gardens, Lower Redlands, set up a splendid collection of Apples and Pears, consisting of about two dozen varieties.

Letters respecting the British Gardeners' Association were placed before the members, and after the subject had been discussed a proposition that the correspondence lie on the table for three months was carried unanimously amid acclamation. A vote of thanks to the lecturer and exhibitors brought a very pleasant evening to a close. Several new members were elected.

WEYBRIDGE.

The Parish Hall was taxed to its utmost to contain the exhibits arranged here for the autumn show, which was a great success. Cut blooms were numerous and good. The leading prize was a Japanese silver cup for twelve Japanese blooms, distinct, and for which seven entered. Mr. J. Lock, gardener to Sir C. Swinfin Eady, Oatlands Park, was the prize-winner with a stand of heavy bright blooms of popular varieties. F. S. Vallis, Mme. Nsgelmaker, Mrs. G. Mileham, and Mrs. F. W. Vallis were well represented. Mr. T. Stevenson, gardener to E. Mccatta, Esq., Addlestone, was a good second with smaller yet high-class flowers. Mr. H. Buckmaster, gardener to F. W. Smith, Esq., won the premier award for twelve vases of Japanese, three blooms in each; a capital exhibit. Mr. W. Shorte, gardener to Mrs. Machin, was a close second, both staging popular varieties. Mr. Lock won for eighteen Japanese and twelve incurved, as

well as for the best display in a tray 3 feet by 2 feet 6 inches with foliage of any kind. This last was an effective exhibit, showing how well under proper treatment large Japanese Chrysanthemums lend themselves for decoration.

Single-flowered varieties were quite a feature, and so were the Pomposos, so well they they staged. Mr. Pagram, gardener to J. Courtenay, Esq., Weybridge, won the premier award in the former section, staging well-formed, richly-coloured blooms of Eureka, Edith Pagram, Grace, and Mrs. Walton. Mr. Caryer, gardener to W. G. Meissier, Esq., Weybridge, in the latter had beautifully developed blooms, not too large but shapely, of Mlle. Elise Jordan, Mlle. Marthe, President, and W. Westlake. Amateurs were well represented by Mr. Wheatley, Thames Street, Weybridge, who staged twelve Japanese blooms of a high order of merit.

Orchids were well shown by Mr. E. Watford, gardener to A. Hertman, Esq., Weybridge. Cattleya labiata, Oncidium Rogersii, and O. varicosum Rogersii were well flowered. Salvia, Begonias, Solanums, Primulas, and table plants were all well represented, and so were fruit and vegetables. Space, however, does not admit of a further mention of the classes separately.

BECKENHAM HORTICULTURAL SOCIETY.

LECTURES AND MEETINGS.

NOVEMBER 25.—"Vines and Peaches," by Mr. J. W. Barks, December 9.—"Popular Horticulture," by Mr. W. Turney, December 16.—"Alpine Gardening," by Mr. Edward Lovett (illustrated by lantern slides), 1905: January 6.—"Decorative Chrysanthemums," by Mr. P. Waterer, January 20.—"A Chat About Potatoes," by Mr. H. J. Jones, February 3.—"Horticulture in Egypt and Syria," by Mr. J. Cheal (illustrated by original lantern slides), February 17.—"The Management of Young Fruit Plantations and Inter-cropping," by Mr. S. Deadman, March 3.—"Bottling Fruit" (illustrated), by Mr. R. B. Leach, March 17.—"Hardy Flowering Plants of the Spring Garden," by Mr. M. E. Mills, March 31.—"Forced Vegetables," by Mr. W. A. Cook.

The library at the Church House, Beckenham, contains upwards of 300 volumes on horticulture (catalogues may be had on application), with seven of the weekly magazines on gardening. The reading room is open every Friday evening from 7 to 9.30 p.m.

MAUD HORTICULTURAL SOCIETY.

THE annual meeting was held in the Victoria Hall, Maid, recently, the Rev. W. Cowie, vice-president, in the chair. The financial statement, submitted by the treasurer, Mr. Smith, showed an income of £74 7s. 7d. and an expenditure of £65 4s. 9d., leaving a balance to the credit of the society of £9 2s. 9d. The statement was approved of, and it was agreed to continue the operations of the society. The retiring office-bearers were reappointed. Mr. John Michie was appointed a member of committee in place of Mr. A. Dempster, who retires from the committee this year.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting of the Scottish Horticultural Association was held in Dowell's Rooms, George Street, Edinburgh, on the evening of the 1st inst. The chair was occupied by Mr. R. W. E. Murray, Blackford House, one of the vice-presidents of the association, and there was a large attendance of members. A number of exhibits were shown, and four certificates were awarded. These were cultural certificates to Mr. M. Todd, for Roses, shown in a vase; to Mr. Waldie Lamont, gardener to the Rev. R. M'Nair, Colinton Road, for excellent Chrysanthemums; to Mr. Pirrie, Dalhousie Castle, for Cattleya Portia; and to Mr. David Lornie, for Potatoes, these being Northern Stars. Among the other exhibits were an excellent dish of St. Joseph Strawberries from Mr. T. Leslie, Trinity Cottage; fine Chrysanthemums from Mr. James Fraser, Kirravock; and early Chrysanthemums from Mr. Todd. The paper of the evening was contributed by Mr. Waldie Lamont, and was on the seasonal subject of "Chrysanthemums Mainly for Exhibition." As might be expected from a grower like Mr. Lamont, it was a highly practical and valuable one, although, of course, many points familiar to good growers were touched upon. It could not fail, however, to be of great value to many present, and was interesting to all growers of the Chrysanthemum. Mr. Lamont dealt principally with growing Chrysanthemums for exhibition, and, among other points, laid great stress upon the necessity of having the varieties exhibited up-to-date. The cultivation of Chrysanthemums for exhibition was well described, one question upon which emphasis was laid being that of the best places for growing plants. Mr. Lamont considered that the environment was of even greater importance than the individual who grew them; and in touching upon this he took occasion to support the action of the council of the association in offering prizes at the annual Chrysanthemum show confined to growers within the municipal boundaries of Edinburgh and Leith. He considered that growers in or near large towns were at a great disadvantage compared with those in the country. A reference was also made to the future of the flower, and the lecturer was strongly of belief that the day when the Chrysanthemum would no longer be cultivated would never come. A most interesting discussion followed, and Mr. Waldie Lamont was heartily thanked for his excellent lecture. The annual Chrysanthemum show of the association takes place in the Waverley Market, Edinburgh, on the 17th, 18th, and 19th inst., and there is every prospect of a magnificent display.

DUNDEE HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of the Dundee Horticultural Association was held in the Technical Institute, Dundee, on the evening of the 1st inst. There was an excellent attendance, and the paper of the evening was listened to with keen interest. The lecturer was Mr. Charles Comfort, Broomfield, Davidson's Mains, Midlothian, his subject being "The Gardener's Education and General Equipment." Mr. Comfort

treated his subject in a very able way, and few of the papers read to the members of this association have been so well calculated to inspire in the minds of the younger members a desire for improvement in their calling. He urged upon his hearers the desirability of improvement in their work and methods, and pointed out several ways in which this could be done. Mr. Comfort has evidently a high ideal of the equipment of a truly successful gardener, and he pointed out, among other things, the necessity of his having some knowledge of science and art, and of taking advantage of the opportunities of the winter evenings for attending classes and reading horticultural works. The advantages of visiting other gardens were also pointed out, and a thoroughly useful and suggestive lecture was given. Mr. Comfort was very heartily thanked. The next lecture of the course on the syllabus is on "Our Cone-bearing Trees," with lantern illustrations. The lecturer is Mr. J. B. Corr, Dundee, and the date is December 6.

EASTBOURNE CHRYSANTHEMUM SHOW.

The Floral Hall, Devonshire Park, is an ideal building for a Chrysanthemum show, resembling, as it does, a large conservatory, and no better display has been seen at Eastbourne than that on the 3rd and 4th inst. The cut flower classes were filled throughout with first-class flowers, although in some instances lacking somewhat in freshness, having done duty the previous two days at Brighton.

In the open classes leading prize winners were as follows: For twenty-four Japanese blooms in not less than eighteen varieties, Mr. A. Simmons repeated his Brighton success, closely followed by Mr. J. Pitts, gardener to Mr. E. Ascheron, Charing, Kent.

Mr. A. Simmons also secured first prize for twelve Japanese, Mr. A. Wilson, gardener to the Marquis of Abergavenny, was second.

Six Japanese yellow or white in a vase with foliage or berries: First, Mr. G. Whitehorn, gardener to Mr. C. Diplock, Polegate. For the same number in any other colour: First, Mr. A. Wilson.

Table decorations were a good feature. Mr. G. Grigg, gardener to the Earl of Ashburnham, brought the best table of Orchids, arranged with Ferns, &c.

In the open fruit classes Mr. F. W. Thomas, Wannock, was first for both culinary and dessert Pears, Mr. G. Grigg taking like honours for stewing and dessert Pears, and also for three bunches of black Grapes; Mr. W. Allen, gardener to Lord Brassey, Normanhurst, winning for three bunches of white Grapes.

In the second division open to members the principal winners were the following: Eighteen Japanese, distinct: First, Mr. C. J. Dicker, gardener to the Hon. Miss Canning, Frant Court; second, Mr. E. Hopkins. Twelve Japanese, distinct: First, Mr. C. J. Dicker.

For six incurved, distinct: First, Mr. G. Grigg, who likewise took similar honours for a table of plants arranged for effect, and other prizes Mr. W. Breach won for a collection of Potatoes; second, Mr. A. Brown.

Non-competitive exhibits were staged by Mr. G. T. Scott, Eastbourne, who had a large group of plants, flowers, &c., as also had Mr. Durrant Young of Eastbourne. Messrs. W. Wells and Co., Redhill, had some flowers of new large-flowered Japanese Chrysanthemums.

Mr. M. T. May, gardener to the Duke of Devonshire, had a large display of plants, &c., tastefully arranged. Mr. J. Gore, Polegate, exhibited some fine specimens of Grapes Canon Hall, Muscat, Black Alicante, Gros Colman, and Muscat of Alexandria.

BRIGHTON AND SUSSEX HORTICULTURAL SOCIETY.

THE Chrysanthemum show of the above society, held in the Dome and Corn Exchange on the 1st and 2nd inst., was a decided success, the exhibits both for quantity and quality leaving nothing to be desired. Interest as usual centred round the large cut bloom classes, where many magnificent specimens of Japanese varieties were staged.

The leading class, that for thirty-six blooms in twenty-four varieties, brought out nine competitors with not a second-rate exhibit in the lot. Mr. A. Simmons, gardener to Sir Francis Osborne, Bart., The Grange, Framfield, for the second time won the first prize, consisting of a silver bowl, silver medal, certificate, and £3 in cash. Amongst other fine flowers were Duchess of Sutherland, F. S. Vallis, Bessie Godfrey, Miss O. Miller, Kimberley, Mme. P. Radelli, W. R. Church, and Geo. Lawrence. Mr. R. Draycott, gardener to Colonel Dudley Sampson, Lindfield, was a very close second, with deeper blooms; Mr. J. Pitts was third.

Mr. A. Simmons also carried off the first prize for twenty-five Japanese flowers, arranged in five vases, with their own foliage.

A feature of the show were six enormous blooms of F. S. Vallis, which were placed first in a class for six blooms, one variety, and were shown by Mr. J. Pelling, gardener to the Rev. E. C. Mackenzie Stuart, Framfield.

Mr. G. Hart, gardener to H. Head, Esq., Buckingham, Shoreham, was first for twelve incurved, followed by Mr. W. Hill.

Groups were greatly in evidence, the largest class, that for a group 14 feet by 8 feet, bringing out several fine arrangements. Mr. G. Sims, gardener to E. A. Wallis, Esq., Sunnyside, Upper Lewes Road, Brighton, carried off first honours, followed by Mr. H. Head, The Drive Nursery, Hove. For a group 11 feet 6 inches by 6 feet 6 inches Mr. H. Skinner, gardener to J. Dunk, Esq., Brighton, was first.

Trained plants are usually good at Brighton, and this year Mr. Lambert, 17, Bognor Road, Chichester, had the best four dwarf specimens, showing large plants well covered with flowers of good size. Mr. G. Eastwood, gardener to Mrs. Gould, Downs Hotel, Hassocks, had the finest twelve pots of single Primulas, and Mr. George Chandler, Lea Hurst, Withdean, was first for twelve pots of Begonias in flower.

A class not often burdened with a numerous entry is that for a collection of Orchids arranged on a table with Ferns, &c. Mr. H. Garnett, gardener to R. G. Fletcher, Esq., Withdean, was first, and Mr. George Stratford, Dyke Road, Brighton, second.

Mr. J. Davis, gardener to Major E. H. Thurlow, Buckham Hill House, Uckfield, arranged the first prize lot of nine Japanese blooms and any foliage in one vase; Mr. A. Findlay, second.

Mrs. Rappley, East Grinstead, scored for an arrangement of Chrysanthemums and foliage suitable for a dinner-table, the best table of Chrysanthemums, Ferns, &c., coming from Mr. George Miles, Dyke Road, Brighton.

In the amateur and gardeners' classes, Mr. W. E. Anderson, gardener to B. Parish, Esq., Melodia, Preston Park, took the lead for a group of Chrysanthemums, 11 feet 6 inches by 6 feet 6 inches, followed by Mr. A. J. Blake, and the Brighton Amateur Challenge Trophy, to be won three times, for blooms to be grown within three miles of the Pavilion, went to Mr. T. Wells, The Bugle Inn, Brighton, there being considerable dissatisfaction over the decision of the judges.

In the fruit classes the competition was severely keen, some the specimens being on view.

No less than twenty-two exhibits were seen in the class for four dishes of dessert Apples, Mr. Charles Crane, gardener to Mrs. Alexander, Hinton, Maidstone, being first. He showed Barnack Beauty, Ribston Pippin, Cox's Orange Pippin, and Swedish Reinette; Mr. F. W. Thomas, Wamock, was second. Culinary Apples were scarcely less numerous. Mr. E. W. Thomas was a good first in the class for four dishes.

Amongst exhibits not for competition were the following: Messrs. Wells and Co., Redhill, a few large-flowered Japanese, chiefly new, the best being Mrs. J. E. Dunne, something after the type of Miss M. Ware, but deeper, more decided colour; Mr. W. Knox, a large reflexed yellow; and Mrs. H. Partridge.

From Messrs. J. Cheal and Sons, Crawley, came a large number of Apples and Pears in variety.

Messrs. W. Balchin and Sons, Brighton and Hove, had very beautiful floral designs, composed of cut Chrysanthemums, Orchids, &c.

Mr. L. R. Russell, Richmond, Surrey, ornamental trees and shrubs in pots, and Messrs. Tilley Bros., Brighton, bulbs.

PORTSMOUTH.

The eighteenth annual exhibition of the above society took place in the beautiful Town Hall, on the 2nd, 3rd, and 4th inst. The exhibits generally were said to have excelled all previous attempts in quality as well as entries.

OPEN CLASSES.

For a group of Chrysanthemums, Mr. J. Agate, Havant, was first, showing a good arrangement with first-rate blooms; second, Parks and Open Spaces Committee; third, Mr. E. W. Gill.

Twelve plants of Chrysanthemums, not less than twelve blooms to a plant, brought forth good competition. Mr. G. Lambert was the first prize winner with well grown plants.

Perhaps the greatest interest centred on the class for forty-eight blooms, to consist of twenty-four Japanese and twenty-four incurved. This brought seven entries. The coveted award was handsomely won by J. B. Hankey, Esq., Fetcham Park, Surrey (gardener, Mr. W. Higgs). Included in the Japanese were Duchess of Sutherland, F. S. Vallis, highly coloured, S. T. Wright, Mafeking Hero, and Mildred Ware amongst the many highly finished blooms. The incurved were excellent in colour, size, and form. F. W. Flight, Esq., Twyford, Winchester (gardener, Mr. Neville), second; W. G. Adams, Esq., third.

For twenty-four blooms Japanese, Mr. J. Love, East Cowes, gained the first prize with a good collection; Mr. J. Agate, second, Mr. Neville, third.

For twenty-four incurved, not less than eighteen varieties, F. W. Flight, Esq., was awarded the first prize; Charles Curtis, Globe d'Or, and Duchess of Fife were the best selected; Mr. J. Agate, second; and Mr. C. White, third.

Amateurs exhibits were very good and numerous, the few selected here being specially so.

For eighteen blooms Japanese, Mr. Love won with capital blooms, followed by Mr. C. White.

For twelve blooms, Mr. C. White was easily first.

In the amateurs' section no less than eighteen classes were provided, each being well filled.

For a miscellaneous group, arranged in a space of 50 square feet, Messrs. W. Turner and Co., nurserymen, were awarded first prize with a very nice arrangement. R. Burridge, Esq., second; Messrs. Brickwood and Co., third.

For twelve table plants, W. H. Myers, Esq., first; Mrs. Hulse, second; Messrs. Brickwood and Co., third. Primulas were well shown and in quantity. Fortwelve, Mr. G. Lambert was first.

Table decoration, open to ladies only: Mrs. L. Fay, Portsmouth, first with Chrysanthemum Source d'Or and foliage very lightly arranged; Mrs. W. Sturt, Emsworth, second, and Mrs. W. Stanley, Coulsell, third.

FRUIT AND VEGETABLES

were largely shown in the open classes. The principal prize winners were Mr. C. Johnson, W. H. Myers, Esq., M.P., Swanmore Park (gardener, Mr. G. Ellwood); Mrs. Hulse, Haslemere, Surrey; Mr. H. Lee, Mr. H. Adams, W. Wadding, Esq., Mr. W. J. Ower, Sir William Pink (gardener Mr. W. Cheates), and Mr. W. M. Clay.

For six varieties of vegetables (prizes offered by Messrs. Sutton and Sons), eight competitors staged, W. H. Myers, Esq., being first.

CROYDON AND DISTRICT HORTICULTURAL SOCIETY.

A CAPITAL attendance of members and friends assembled at this society's rooms, Sunflower Temperance Hotel, on the 1st inst. to listen to a lecture given by a popular lecturer. The subject was "Birds of Our Garden," and at the hands of Mr. F. F. Bunyard, a member of this society and a local ornithologist, it was well expounded, both from the beneficial and

deleterious aspects of these feathered friends and foes. He had provided exceedingly good lantern slides of his subject, so that with the kind assistance of Mr. J. H. Baldock, who operated with the lantern, the illustrations thrown on the screen were lifelike representations. Some of the views were unique, and showed the extreme patience and energy displayed in getting snapshots from life of these timid creatures. In some instances the photographer had been obliged to wait days before his object was accomplished.

BIRMINGHAM CHRYSANTHEMUM AND FRUIT SHOW.

On Tuesday, Wednesday, and Thursday last this exhibition was held in the Bingley Hall, and was larger than ever before. There was hardly any space left vacant in the huge building that could be conveniently occupied. We should like to suggest that the groups of plants, both competitive and non-competitive, might be arranged so as to produce a much more pleasing effect as a whole. The pots and sticks and bare plant stems that were exposed to the gaze of visitors sitting on the seats provided in the centre of the hall to listen to the music were anything but pleasing; in fact, they detracted considerably from the beauty of the display. Why could not the competitive group be arranged in circular fashion in the centre of the hall, round the pillars perhaps, and the beautiful trade displays arranged on the ground around them? Then much ugly staging would be dispensed with, and when viewed from the gallery as well as from the ground floor, the effect would be much more pleasing. Our flower shows are not to be compared with those on the Continent for decorative effect, yet from the point of view of the public, a beautiful exhibition generally is of as much importance as a beautiful flower or group individually.

PLANTS.

The first class was for a collection of British-grown fruit to be grown by the exhibitor, and to occupy a space not exceeding 40 feet. The first prize was won by Mr. H. Weeks, gardener to Lady Byron, Derby. His Apples were richly coloured, the Pears very fine, the Grapes good, and the arrangement very pleasing. The tinted leaf-sprays of Ampelopsis were used effectively in decoration. Second, Mr. J. Reid, gardener to the Earl of Carnarvon, Burton. The fruits were very good, though they lacked colour on the whole. Third, Mr. W. E. Hyde, Ledbury.

The best nine trained plants of large-flowering varieties were shown by E. Martineau, Esq., Eghaston (gardener, Mr. O. Brasier), and J. A. Kenrick, Esq. (gardener, Mr. A. Cryer), was second. There were no other exhibitors. Mr. Brasier was first for six similar plants, and was the only exhibitor. The six trained plants of Japanese sorts were most attractive, being less stiffly trained. Mr. Brasier was again first, Lady A. Buller (yellow) being the finest. Mr. A. Cryer was second. Mr. Brasier was also first for three plants of Japanese sorts, for one Japanese, and for one large-flowering group.

A group of Chrysanthemums, to be arranged in a space 20 feet wide, brought three competitors, the first prize being won by Mr. W. Thompson, gardener to J. Whitehead, Esq., Moseley. There were many good blooms and some indifferent ones. This group, which although the design was excellent, was somewhat stiffly arranged. Second, Mr. W. Sanford, Hall Green, with rather a heavy group; third, Mr. A. Cryer, gardener to J. A. Kenrick, Esq., Eghaston.

CUT BLOOMS.

The class for eight vases of Japanese varieties, five blooms of each, made a handsome display. The first prize was won by Mr. E. J. Brooks, gardener to Lieutenant-Colonel Beech, Coventry, with some splendid blooms of much value for bold decoration. Henry Perkins, red, with yellow reverse to petals, was the finest; Bessie Godfrey, with yellow curling petals, was also very fine. Mr. C. Crooks, gardener to the Dowager Lady Hindlip, was a good second, such sorts as Mrs. G. Miteham, F. S. Vallis, and Mme. Radaelli being well represented. Mr. F. May, gardener to H. O. Lord, Esq., Charlton Kings, was third.

For six vases, each containing five blooms, distinct, Mr. E. J. Brooks, Coventry, was first with handsome flowers; second, Mr. Crooks, F. S. Vallis being excellent; third, Mr. F. May, Charlton Kings.

For one vase each of four distinct sorts of Japanese, five blooms of each, Mr. Crooks was first, Florence Penford and F. S. Vallis being his best; second, the Leamington Nurserymen, Limited; third, Mr. Martin, Erdington.

For two vases, each containing five blooms of one variety only, the first prize was won by Mr. C. Crooks, Hadsor, Droitwich, with Mme. Paolo Radaelli.

Mr. F. May, Charlton Kings, was first for one vase of a crimson Japanese Chrysanthemum, showing the variety Lord Hoptoneta. The Leamington Nurserymen, Limited, had the best vase of white Japanese in Mrs. J. C. Neville, and Mr. Crooks, Hadsor, the best vase of yellow with F. S. Vallis.

The best eighteen blooms of incurved Chrysanthemums were shown by Mr. Goodacre, Elvaston Castle Gardens, Derby. The bright yellow C. H. Curtis was the best; second, Mr. W. J. Bastin, gardener to Sir A. Henderson, B.R., M.P., Faringdon, Berks.; third, Mr. W. Manning, Dudley.

Mr. Brooks, gardener to Lieutenant-Colonel Beech, Coventry, was first for eighteen blooms of Japanese; these, with curling forets such as Duchess of Sutherland, Gay Hamilton, and Mme. P. Radaelli were finely shown; second, Mr. J. N. Bush, gardener to F. J. Myers, Esq., Banbury; third, Mr. C. Crooks, Hadsor.

The best twelve incurved blooms were from Mr. Goodacre, Elvaston, Derby. C. H. Curtis, Giles, and A. Hills were the best. Mr. W. J. Bastin was a good second, and Mr. F. May was third.

For twelve blooms of Japanese Mr. W. Isgulden of the Flower and Fruit Company, Frome, was first, Guy Hamilton (white) and J. Kepton (yellow) being the most attractive blooms; second, the Leamington Nursery Company; third, Mr. F. May.

Mr. T. W. Piggott, Moseley, showed the best twelve blooms grown within four miles of Birmingham. Mr. Piggott also

had the best twenty blooms grown under similar restrictions. Mr. E. J. Byrne, Gravelly Hill, was first for twelve blooms in the class open to those who have not taken a first prize before. In a local class for twelve blooms Mr. W. Manning, Dudley, was first out of several competitors.

The dinner-tables decorated with Chrysanthemums made a very pretty display. They extended the length of the hall, and were, with one exception, decorated with bronze and yellow flowers. The first prize was won by C. A. Palmer, Esq., Handsworth (gardener, Mr. C. Thomas); second, Miss Woolman, Tysley; third, the Leamington Nurserymen, Limited.

Mr. C. Kelland, gardener to A. H. Griffiths, Esq., Edghaston, was first for a small group of plants.

Mr. A. Jeffs, gardener to E. Ansell, Esq., Bromsgrove, won first prize for twelve blooms of Japanese sorts on long stems.

FRUIT.

Mr. Goodacre, Elvaston Castle Gardens, Derby, was first for six bunches of Grapes, three varieties, with Muscat of Alexandria, Gros Maroc, and Alicante. Mr. J. Jones, Malvern, was second. He showed the variety Lady Hutt well.

Mr. T. Bannerman, gardener to Lord Bagot, Rugeley, had the best three bunches of black Grapes, and Mr. Goodacre the best three white bunches.

Mr. H. Folkes was first for two bunches of white Grapes, showing Golden Queen. The first prize for two bunches of black Grapes (local) was won by Mrs. Martin, Edghaston, and in a similar class for white Grapes Mrs. Martin was also first.

For six dishes of culinary Apples Mr. W. Rose, gardener to E. W. Cradick, Esq., Ross, was first with handsome richly coloured fruits; second, Mr. Crooks, Hadsor, Droitwich.

Mr. Charles Ross, Welford Park, Newbury, had the best six dishes of dessert varieties, all of his own raising; second, Mr. H. Wright, gardener to W. Waldron, Esq., Kingswinford.

The best eight dishes of Pears were shown by Mr. S. Postings, gardener to W. Williams, Esq., Wolverhampton; and Mr. Crooks, Hadsor, was first for four dishes.

VEGETABLES.

Mr. H. Folkes, gardener to the Right Hon. T. F. Halsey, M.P., was first for a collection of vegetables. Prizes offered by Messrs. Webb and Sons, Wordsley.

The first prize for a collection of vegetables (prizes offered by Messrs. Sutton and Sons) was won by Mr. E. Beckett, Aldenham House Gardens, Elstree.

Messrs. W. H. Simpson and Sons also offered prizes for vegetables.

Mr. Robert Sydenham, Tenby Street, Birmingham, offered numerous prizes for vegetables and a silver challenge bowl to the winner of the greatest number; it must be won three times to become the property of the exhibitor. Mr. H. Folkes, gardener to the Right Hon. T. F. Halsey, M.P., Hemel Hempstead, won the bowl with 32 points. Next on the list was Mr. T. Jones, Raabon, with 31 points. Mrs. W. A. Marrian (gardener, Mr. T. Griffiths) won the local cup with 33 points. The maximum number of points was 60.

TRADE EXHIBITS.

Mr. T. H. White, Worcester, exhibited hardy fruit and a collection of hardy shrubs; the Leamington Nurserymen, Limited, showed hardy shrubs; Richard Smith and Co., Worcester, sent shrubs; W. B. Child, Acock's Green a group of shrubs and flowering plants; John Waterer and Sons, Limited, Bishops, shrubs, &c., conifers, Hollies, and Skimmias; Hewitt and Co., Solihull, shrubs in variety; the Vineries, Limited, Acock's Green, made a delightful display with hardy free-flowering Chrysanthemums; Baker's, Wolverhampton, exhibited a wonderful lot of Potatoes; T. C. Rivers, Eghaston, sent trees and shrubs; Johnston and Son, Sutton Coldfield, showed single Chrysanthemums; W. B. Rowe and Co., Worcester, exhibited a grand lot of hardy fruit; Pentwrie Brothers, Tillington, Hereford, and Mr. John Bisham, Bissalee, also showed hardy fruit well; Gibbons, Altrincham, showed some beautiful single Chrysanthemums; floral decorations were shown by Messrs. Hewitt and Co., Birmingham, Perkins and Sons, Coventry, and Gunn and Sons, Olton; Mr. William Sydenham, Tamworth, made a splendid display of border Chrysanthemums in some beautiful sorts; hardy fruit was shown by Messrs. Peed and Son, West Norwood, S.E., and by Messrs. R. Smith and Co., Worcester; Webb and Sons, Stourbridge, made a fine display with Potatoes and Begonias; Thompson and Co., Birmingham, sent Chrysanthemums and vegetables.

The King's Acre Nurseries, Hereford, showed hardy fruit extensively and well; Mr. Ambrose, Cheshunt, sent his new black Grape, as well as Carnations, Roses, Lilies, &c., tastefully displayed; Messrs. Wells and Co., Redhill, exhibited some very pretty Chrysanthemums; vegetables were shown by Messrs. Yates and Son, Birmingham; and Chrysanthemums by Mr. W. B. Child, Acock's Green. Mr. Robert Sydenham showed table decorations; and hardy fruit was shown from the Worcestershire County Council's Experimental Garden at Droitwich.

An exhibit of bottled fruits from the Lady Warwick College, Studley Royal, attracted much attention; Mr. W. Godfrey, Exmouth, Devon, had a splendid display of blooms of Japanese varieties, including many novelties, and hardy plants were sent from Bick Brothers, Olton.

The group set up by Mr. Deacon, gardener to the Right Hon. Joseph Chamberlain, M.P., was bright with Chrysanthemums, Begonias, Pelargoniums, Lilies, and stove plants in variety. Acalypha sanderiana was very handsome.

GARDENING APPOINTMENT.

MR. JAMES BETHEL, who has been gardener to Mrs. Walker, Westwood, Newport-on-Tay, for a number of years, is leaving to enter upon an appointment as foreman in the nurseries of Messrs. Storrie and Storrie, Dundee and Glencairn. Mr. Bethel has done splendid service as secretary of the Dundee Horticultural Association, and he has been a frequent prize taker at the leading local shows.

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.—T. W. MATTHEWS.—*Boussingaultia baselloides*, a native of South America, from whence it was introduced in 1835. It is now fairly well known over a considerable portion of the globe. It belongs to the same natural order as the Spinach.

Names of fruits.—F. E. S.—1, Mère de Ménage; 2, Emperor Alexander; 3, Washington; 4, Dumelow's Seedling; 5, Blenheim Orange; 6, King of the Pippins; 7, Alfriston; 8, Sandringham; 9, Cox's Orange.

Begonia leaves diseased. (A. S. COLLINS).—We were rather puzzled by the *Begonia* leaves sent, and have shown them to several successful cultivators of this class of plants, nearly all of whom concur in the opinion that the discoloration of the leaves is caused by a very minute kind of yellow thrips, that do a considerable amount of damage before their presence is suspected. An examination of the young unfolding leaves may detect some of these pests, which are almost microscopic in character. The XL All Vapouriser is an effectual cure for these and nearly all other insect troubles, and that, too, without any damage to flower or foliage. One grower mentioned that he had observed much the same results from an excessive use of stimulants.

Clivia leaves diseased. (HOLT END).—As far as can be judged by your letter there is nothing in the treatment accorded your *Clivias* to account for the leaves being so severely attacked by rust as those sent. You say nothing about the condition of the roots—a most important item—and we are inclined to think that a good deal of the trouble lies there. Have you used any stimulating manure? If so, it may have acted injuriously on the roots. Our reason for making this suggestion is that two or three years ago we were consulted with regard to a collection of *Clivias* whose condition left very much to be desired, the leaves of many being badly rusted. Enquiries elicited the fact that when repotted a certain stimulating manure was mixed with the soil, and this acted so injuriously to the roots that on turning them out of the pots it was found that none of them had taken kindly to the compost, and the roots were altogether in a bad state. By our advice they were immediately after flowering shaken clear of the old soil, the decaying roots cut off, and the plants then repotted in just such a mixture as you describe. As most of them lost a good many roots they were put into smaller sized pots than before. After this the plants were kept rather closer and warmer than they were previously, and special care taken not to overwater. The result of this was pots full of good healthy roots, and though the amount of flower the next season was not great, the young leaves were quite free from rust, and they have gone on improving ever since, being again potted into the large pots from which they were removed.

Laurels as undergrowth. (HAZELDEANE).—All the Laurels may be used to form undergrowth beneath trees of large size, but they should be kept low by annual pruning. Where the groups of trees are large, the wide breadths of Laurel are very effective. Specially attractive are the groups of Birch springing out of masses of dark-leaved Laurel. But when Laurels are planted beneath large old trees, the ground should be well broken up, even if a few of the roots of the trees have to be sacrificed, and some old leaf-mould or charred rubbish worked in round the roots to give the plants a start. We think the round-leaved Laurel better adapted for planting beneath trees than the common variety. It is dwarfer and closer in growth, the leaves are smaller, and the plants will not require so much cutting back. Once get a plantation of Laurels established, and the plants can be kept in good condition for many years by layering a few of the young shoots annually. The shoots layered need not be tongued or cut in any way. All that is required is to bend the shoot to the ground and throw two or three spadefuls of earth upon the branches where they touch the ground. Treated in this way, these wide breadths of Laurels are virtually indestructible, no matter what the weather may be if the annual pruning is not neglected.

Draining land for fruit growing. (HAMPSHIRE).—Every year adds to the acreage of land devoted to fruit culture. In very many instances the trees are not properly planted, as merely digging holes and thrusting in the roots can hardly be called good work. One of the most important of what may be called preliminary operations is draining. Where any extent of land is laid down for fruit trees, if the soil is of an adhesive character, it would pay to put in good drains 3 feet deep and not more than 18 feet apart. After the drains are in, if the steam cultivator could go over the land two or three times so as to break it up thoroughly the work would be expeditiously and economically done. This breaking up would be of the greatest possible benefit, the water would pass away freely to the drains, the air would follow, and the whole mass of moved and aerated soil would soon be in splendid condition for the roots to work in.

Strawberries in pots. (R. E. JOHNSON).—The growth of these will soon be complete, but they are best left in the open as long as possible, so as to thoroughly mature the

crowns. The plants when standing on a hard, well-drained coal ash bed will take no harm. It is when they stand in places flooded with water and worms are allowed to get inside the pots that the mischief is caused. In wet seasons there is more difficulty with worms, but if the drainage is good and the pots stood as advised, there is little danger. We do not like the system of placing the plants along the sides of walks, as often they get more water than is good; the sides of walks being the lowest, the water is slower to run off and the plant is soddened. We would advise the use of strips of rough wood or racks when in such positions, as then feeding can be better attended to. Worms do less mischief and the walks are not disfigured. The resting or protection of these fruits when in large numbers is often a difficult matter. There is no better position for them than cold frames, plunging the pots in ashes or leaves, as in such places the lights can be removed in suitable weather and extra covering given if necessary.

Transplanting Oaks. (FOREST TREE).—Differences of opinion prevail respecting the advantages to be derived from Oaks raised direct from the Acorns in the woods as compared with those which are transplanted from the nursery; but there is every reason to believe that as good timber can be obtained by the one method as by the other. Where the young plants are undercut in the nursery they generally flourish more vigorously after removal, and the process of heading down bark-bound and unhealthy-looking plants often in a few years gives them the lead of the uncut ones. Too much importance is attached to an undisturbed tap-root by those who forget that its main functions are lessened, or cease altogether, when the tree gets well established in the soil. Thus, when the top of an Oak assumes a rounded form, the tap-root ceases to descend, even though the lateral roots may still continue active.

The Elder as a nurse tree. (DOUGLAS COX).—We think you would find the Elder to be the most suitable for your purpose. In places where the strong west wind blows for several months in the year, and where even common Gorse looks as if it were rolled, the Elder will grow and thrive, and anybody about to start a plantation in such places would do well, as a preparatory step, to plant the ground in the interior thinly over with Elder bushes, but as thickly as possible along the margin, especially on the windward side. This skeleton plantation of Elder, filled in with timber trees, will have a massive and telling effect. Elder will also withstand sea breezes as well, and perhaps better, than any other shrub or tree. No other tree or shrub will grow in the shade or stand the drip of trees better than the Elder. In woods, the darkest and gloomiest spots may be made cheerful and lively by means of the Elder planted freely. As cover in woods and plantations, where little else would live, the Elder is valuable. Lastly, the Elder makes a good plant for filling up gaps in hedges, especially where they pass under trees, and for boundary fences, where nothing else will grow. It will preserve the continuity of a hedge right up to the trunks or stems of even Beech and Horse Chestnut. Moreover, a well-developed, full-grown Elder tree in full bloom when seen at a distance is a noble object.—R. E.

Black Currant tree diseased. (AN ENQUIRER). The buds of your Black Currants are most decidedly attacked by the Black Currant mite (*Eriophyes ribis*). If you examine one of the buds which has been cut open under a microscope you will find that it contains any number of them. There is no positive remedy for this pest except pulling up and burning the infested bushes. Cutting off the infested shoots has been tried with but little success as a rule, but it has been known to be effective. I should certainly advise the more heroic method, unless the bushes had very few shoots affected.—G. S. S.

Ferns for baskets. (J. K. L.).—The culture of Ferns in suspended baskets might well be considerably extended. Either in the fernery or in the ordinary stove or greenhouse few objects are more attractive than hanging baskets filled with suitable Ferns. Many of the most beautiful species are only seen to advantage when grown in elevated positions where the long drooping fronds can mature their growth without coming in contact with other subjects or being smothered up with their own foliage. Either wire or wooden baskets may be used, but we prefer those made of wire, as they are more durable. The size of baskets should be regulated according to the requirements of the various Ferns, and also the accommodation that can be given them. Where space is limited the larger growing sorts should be avoided. In large conservatories, where plenty of space can be given, the larger baskets may be filled with a mixture of suitable sorts, but we prefer to use only one variety for each basket, for where several sorts are used the atroph-growing ones soon cripple the weaker ones.

Protecting Celery. (W. H. KEELE).—Much unnecessary work is often entailed in the covering and uncovering of Celery. A little protection is beneficial, as, for instance, when a sharp and prolonged frost is imminent and where it is not covered with snow, but to cover up as some people do is not only unnecessary, but injurious, as it often causes decay to set in. Celery not forced on with heavy feeding and also well earthed up will not require covering up until very severe weather sets in. At this time a layer of straw or Bracken should be laid along each side to facilitate the getting up, a little of the cleanest and longest being laid lightly along the top. Heavy coverings must be avoided. Protection from wet is far more needed, especially in those districts which are low-lying and in which rainfall is heavy. The best protection in these cases is to place a "cap" along the tops of the rows. This is formed by fixing two 10-inch boards together. These coverings must be laid along the tops, so that light will enter freely, this also allowing a circulation of air.

Autumn-flowering rock plants. (M. C. E.).—As all or most of the true alpine plants have their flowering season before the end of July, one cannot expect an autumn display of flowers in the rock garden if it is limited to these plants alone. Therefore, if flowers are wanted after this time, it can be managed by introducing some of the dwarfer

and more compact growing herbaceous plants. These, however, should be planted so that they do not injure the smaller and choicer plants, which would have no chance if smothered by these coarser-growing subjects. Some of the autumn-flowering species of *Crocus* would prove useful, and might be planted between the lower-growing carpeting plants, such as mossy Saxifragas, Stonecrops, &c. The best of these are *Crocus speciosus*, *C. zonatus*, *C. hadriaticus*, *C. medius*, *C. longiflorus*, and *C. asturicus*. The *Culicicms* are also useful in the late autumn, providing a varied display of form and colour with their single and double purple, white, and other shades. The best are *C. autumnalis*, of which there are the above-mentioned varieties, *C. speciosus*, *C. giganteum*, and *C. byzantinum*. Among the dwarf herbaceous plants which may be mentioned as late flowering are: *Eigeron mucronatus*, *E. glaucus*, *Linum monogynum*, *Statice tatarica*, *S. sioensis*, *Pentstemon campanulatus*, *Inula Hookeri*, *Verbascum phoeniceum*, *Senecio pulcher*, *Stokesia cyanea*, *Sedum Ewersii*, *Liriope spicata*, *Polygonum vacciniifolium*, *P. affine*, *P. capitatum*, *Veronica Bidwillii*, and other kinds, *Hypericum polyphyllum*, *Spiraea lobata*, *Aster acris*, *Coreopsis lanceolata*, *C. grandiflora*, *Lippia nodiflora*, and *Ceratostigma plumbaginoides*. *Cyclamen neapolitanum* is a very useful and pretty plant for the rock garden, as it takes up little room and remains in flower for a considerable time.

The dwarf Furze. (PLANTER).—The Furze has been frequently praised as a really useful and beautiful plant to grow in bold masses where other things are not likely to succeed, but the variety under notice is choicer still, for it bursts out into full flower when most things are putting on their autumn garb, and is bright and gay with blossom long after many shrubs are leafless. A slender, graceful bush rarely more than 3 feet high, somewhat drooping in habit and elegant in aspect, it might be planted in many places where the common Furze would be too large and coarse. Its flowers are much smaller than those of the ordinary kind, but profusely crowded on the shoots and of a bright yellow colour. Large groups of this Furze would give a welcome brightness to many spots about the garden grounds at this time of the year, and in coverts where ornamental effect is desired there is nothing to compare with it at the present time. All the Furzes transplant badly, and this no doubt is the reason of their scarcity in gardens, but they are easily established by sowing seed. A piece of ground just dug over to make a seed-bed and sown with seed of this Furze would want no more attention, as the seeds soon germinate, and the young plants manage to hold their own and get the better of native vegetation if they have a little start.

Jerusalem Artichokes. (CUCISNER).—These will now come in serviceable as a winter vegetable. They are best left in the ground and lifted as required. The newer white is a great advance on the old rugged form and equally hardy, but it is best to reserve as the lifting proceeds the most even tubers for seed, as with care in selection this form more resembles a Magnum Bonum Potato. This is a great gain, as there is much less waste in preparation and less trouble. Many condemn the old form on account of its rough, irregular shape, but even that can be much improved by careful selection. The Chinese Artichoke (*Stachys tuberosa*) is now ready for use. When crowded the tubers are small and less valuable. This variety makes a nice dish, and is often much valued as a change from the ordinary run of vegetables. The roots may be lifted at the end of the month and stored in earth or sand in the root store or left in the soil and covered with litter. The latter plan is best in mild winters, as the roots keep plump and are of much better flavour.

Striking Apple cuttings. (BEDS).—Directly the leaves fall select vigorous growing and healthy shoots of the current year's growth, but not too sappy. These make the best cuttings, and instead of cutting them from the tree in a haphazard manner, select those with which a small portion of old wood can be secured. By holding the shoot in one hand and the branch in the other and giving the former a sharp downward tug, the shoot is pulled out with the necessary appendage attached. Trim away from the base any jagged bark so that the "heel" will quickly callus over and remove the point of the cutting, leaving it not less than 10 inches or 1 foot long. A border with a western aspect is suitable for cuttings. The soil should be thoroughly broken up to allow the roots when formed to run freely. Dibble the cuttings in in rows 1 foot apart and 6 inches wide in the rows, dropping a small quantity of sand at the bottom of the hole, on which the cutting should rest. It is important that the cuttings be made quite firm and inserted not more than 4 inches deep.

TRADE NOTES.

A GOLD MEDAL FOR MESSRS. KELWAY AND SON, LANOPORT. The American Exhibition authorities have given a gold medal to Messrs. Kelway's beautiful exhibit at the St. Louis Exhibition.

A GOLD MEDAL FOR MR. JOHN FORBES, HAWICK, N.B. Mr. FORBES'S beautiful exhibition of *Antirrhinum*s, *Pentstemon*s, *Phloxes*, *East Lothian Stocks*, &c., at the St. Louis Exhibition, U.S.A., was awarded a gold medal.

MR. AMOS PERRY, Winchmore Hill, London, has been awarded a silver medal at the St. Louis Exhibition for a collection of hardy plants in the "Old English Garden," all, with one or two exceptions, of Mr. Perry's own raising at Winchmore Hill.

CATALOGUES RECEIVED.

Trees, Shrubs, Rosas, &c.—Messrs. Little and Ballantyne, Carlisle.

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THE GARDEN

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TREES AND SHRUBS WITH COLOURED FOLIAGE.

ALTHOUGH many of the so-called variegated leaved trees and shrubs are too poor ever to become popular, there is still a good number with foliage, of other colours than green, which collectively form a very important group, and which year by year become more and more popular with lovers of the outdoor garden. A few of them are very old favourites, and handsome specimens exist in many places. In plenty of gardens a fine Copper Beech may be seen conspicuous among surrounding greenery, while large patches of yellow turn out, on close inspection, to be due to the presence of the common golden Elder. Here and there the white variegated *Acer Negundo* adds colour to the surroundings, while the bronze leaves of *Prunus Pissardi* (of which, by the way, the correct name is *P. cerasifera* var. *atropurpurea*) are to be seen in almost every garden. These few things may be taken as worthy representatives of the group of which many striking examples are mentioned below.

The positions suitable for coloured leaved trees and shrubs are many and varied. The stronger-growing ones make noble groups or single specimens for important positions in garden or park, while those of dwarfer growth are eminently fitted for mixed shrubberies or for specimen beds on the outskirts of lawns and other places. In a large garden or park very fine effects can be obtained by massing coloured foliage trees, as, for instance, a group of Copper Beeches, silver *Acer Negundos*, variegated Sycamores, golden Catalpas, golden or variegated Elms, and other similar things. For a small or moderate-sized garden, however, the dwarfer things are probably more useful, and a mixed shrubbery has much to commend it, for by a judicious mixture of shrubs a very pleasing colour effect can be obtained. For specimen beds the plants require special selection, a few of the very best only being reserved for such places. In the list to be given those most suitable for the purpose will be mentioned.

Exception may be taken to some of these ornamental leaved shrubs—in fact, to the greater number—on the score that their flowers are of no garden value, but it must be remembered that, while the flowering period of most shrubs at the most extends over a few weeks, the period of beauty of these coloured leaved shrubs extends from the time the young leaves

appear in early spring until they fall in late autumn. Anyone who intends planting a group or shrubbery of these coloured leaved shrubs next season would do well, if not thoroughly acquainted with the plants, to pay a visit to some garden or nursery where they are grown during the summer, so as to become conversant with the material to be used, or, through not knowing the plants, one or another colour may be emphasised too much.

(To be continued.)

BRITISH GARDENERS' ASSOCIATION IN IRELAND.

At a meeting of the Irish Gardeners' Association, held on October 22 in its rooms, Grafton Street, Dublin, Mr. F. W. Moore, Curator of the Glasnevin Botanic Gardens, in the chair, Mr. F. W. Burbidge, M.A., Curator of Trinity College Botanic Gardens, in the course of his lecture on "Gardens and Gardeners," said, concerning ourselves as gardeners, you cannot organise a show of gardeners, but was it impossible to "grade" and lift gardeners as a class or body to a higher plane? Was it impossible to give the gardener a higher social status than he got from average society? All the learned professions seemed to have a stone wall round them. One reason was, of course, that professional men were all college men and educated at the university, and they got social status before they entered into their profession at all. It was impossible for most gardeners to get an education of the kind. But there was a beginning. There were colleges in connexion with the universities now starting, at which gardeners were being trained, such as at Reading, Durham, Edinburgh, and other places, and the chances were that the gardener would rise in the social line in that way. The head gardener's social position was legally that of a domestic servant. Mr. Burbidge thought that was a grievance. He might be, of course, a very superior domestic servant, but no more. Another thing was that at the present time any man might call himself a gardener, no matter what his education might, or, worse still, might not have been. Now, he asked, was it wise, was it desirable, was it right that gardeners, as a class, should rest content to be safe-guarded by a broken wall and an open door. Should they, as gardeners, suffer the bad effects of competition, of free trade, which was not fair trade, and was not some sort of co-operation and protection desirable? Nothing in the shape of an aggressive, domineering trade union would ever suit gardeners. It was possible to found an association that would secure the interests of the worker and also the interests of the employer. The experiment of founding such an association in England had already been taken up under the name of the British Gardeners' Association. The lecturer then dealt

in detail with the objects of this association, which, briefly put, were to compile a register of gardeners and gardens, and to regulate wages and working hours, &c. It was proposed to establish a branch of the association in every large town wherever there were sufficient gardeners to form one. This was, as far as Mr. Burbidge could remember, the first real attempt to organise gardeners of all classes under one flag, and if it proved a success, as he firmly believed it would, there was no doubt that it would not only elevate the social status of gardeners, and lead to their material advancement and protection, but also safeguard the interests of employers. He asked the officials of the association to consider the claims of the newly-formed organisation.

We are informed that an evening has since been appointed by the association for consideration of the question.

THE NATIONAL POTATO SOCIETY.

MR. A. DEAN says it is absurd to ask that Potatoes should be tested for flavour at a show. It is infinitely more absurd that an important food product should be judged simply by eye. What happens now is that variety after variety receives high awards for its size, shape, and colour on the exhibition table, and for its reported health and yield in cultivation, while, apparently, nothing is stated or even asked about its quality when cooked. I read my horticultural papers as carefully as most men, and did not succeed in discovering the word "flavour" in any report of the National Potato Society's show. I have never heard or read a single word as to the eatableness of Eldorado. It was announced the other day that the latest invention in Potatoes, The Pearl, changed hands at £1,000 per ton, but no one can tell me whether it is good to eat for man or beast, or either. There may be difficulties in cooking Potatoes at a show—I do not know that they are insurmountable—but there must be some way out of the ridiculous practice of judging food by looking at it. For instance, awards might be made provisionally, and subject to confirmation after a cooking test by a sub-committee. Mr. Dean seems to me to be on much firmer ground when he practically acknowledges that flavour pertains to the weaker races of Potato, and has dropped out of the coarser but more robust modern strains. If it is a fact that high flavour necessarily implies disease and extermination, then, of course, we must be content with these inferior, starchy monsters, though it will still remain true that they are inferior. But I should much like to have evidence that "any infusion of the yellow-flesh Ashleaf" necessitates disease. I may be wrong, but my impression is that the Ashleaf has been singularly overlooked by recent hybridists, and that practically no attempt has been made to infuse its fine

qualities into later and stronger varieties. I put down the insipidity of the modern white-fleshed Potato principally to the American blood, which it will invariably be found to contain, if pedigrees are traced. That most objectionable trick of quickly boiling soft outside and remaining hard in the middle is also due to the same source. It was very noticeable in Early Rose, Beauty of Hebron, &c., when they were first imported, as compared with English Potatoes.

I am afraid that "E. L. B.'s" argument that Up-to-Date, &c., must be good because they satisfy the cook, does not impress me. My whole argument has been that, unfortunately, the current taste is very low in the matter of vegetables and fruit. Let a Potato be big enough and starchy enough and the average cook is quite content. "E. L. B." might as well argue that a big, coarse, insipid Grape such as Gros Colmar must be of fine quality because the consumption is so enormous.

G. H. ENGLEHEART.

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.

PEAR CONFERENCE.

We have received from Mr. E. Carlyon, Belvedere House, Fontley, Fareham, Hants, fruits of the Conference Pear, which, it may be remembered, was raised by Messrs. Rivers and Son, Sawbridgeworth, Herts, in the year 1892. Our correspondent writes: "It takes its name from the Pear conference held at Chiswick at that time. It has received a first-class certificate from the Royal Horticultural Society. It grows and bears equally well on the free, Pear, or Quince stock. It has a good constitution, and is a most profitable variety for market. The unripe fruit is most excellent when stewed, and this is a very good way to utilise those fruits that fall or are damaged. The tree was planted in my garden at Fontley four years ago, against a wall with a south aspect. It was then three years old, and is trained to wire projecting 3 inches from the wall. The garden is situated in a clay pit. The border was well trenched, also well drained with brickbats. The clay was burned and the roots of the tree were spread out on the border, and a covering of 4 inches of the border soil laid over the roots, bringing it to a raised mound. This year the tree has borne over forty Pears like the specimen enclosed; in fact, the tree has borne a good crop each year. I consider it a reliable and profitable Pear to grow. Last year was a very bad fruit season, yet Conference bore a splendid crop. The roots were well watered during July, August, and September."

[The flavour is excellent. It is a handsome and shapely fruit, reminding one somewhat of Beurré Bosc.—Ed.]

KERR'S CIGARETTE POTATO.

Mr. J. H. Ridgwell sends from The Gardens, near Histon, Cambs, a few tubers of this variety grown with Packard's Special Potato Manure. We have seldom seen finer or cleaner tubers, and the flavour is excellent. The following note is of great interest, and should be read by practical gardeners

and others who wish to achieve the best results from the land: "The tubers were planted the last week in June, and on land on which Brussels Sprouts had stood for two seasons (being saved for seed). No other manure was put on but few to the acre of this preparation. Messrs. Packard of Ipswich have evidently prepared an excellent Potato food, which quickly results in a grand crop of tubers of good quality. All growers of Potatoes should try this manure for themselves."

FLOWERS FROM THE ISLE OF WIGHT.

Mrs. Gwytherne-Williams sends from Belvedere, St. Lawrence, Isle of Wight, many interesting flowers, with the following note: "I am tempted to send you a small bouquet from my garden. The list is as follows:

Tulbaghia violacea	Cassia corymbosa (a mass of flower now)
Swainsonia galegaefolia alba	Diplacus glutinosus
Salvia angustifolia	Bowkeria triphylla
Cyclamen persicum	Lagunaria Patersoni
Bouvardia triphylla	Sutherlandia frutescens
" Alfred Neuner	Mauetia bicolor, and a
Romneya Coulteri	Cypripedium.

All except the last have been out for years, but the Sutherlandia is not to be trusted to endure every winter unprotected, and the Cypripedium was put out only last spring."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 23.—Annual Dinner of the National Chrysanthemum Society, Mr. C. E. Shea in the chair.

November 24.—Dramatic Performance, Cripple-gate Theatre, 8.15, in aid of the Gardeners' Royal Benevolent Institution.

November 29.—Royal Horticultural Society at 1 p.m. Exhibition of Colonial-grown Fruit.

December 8.—Annual Meeting and Dinner of National Rose Society; National Amateur Gardeners' Association, Annual Dinner.

The Royal Horticultural Society.

Twenty-three new Fellows were elected at the general meeting held on Tuesday last, including Lord Armstrong, Lady Alexander, Mrs. Dieraelli, and J. Lea Smith, Esq. The Peshurett Gardening Association was also associated to the society. The next exhibition and meeting of this society will take place on Tuesday, the 29th inst., subsequent to which the society will hold the first exhibition of colonial-grown fruit and of British, colonial, and foreign jams and preserved fruits, which promises to show what the colonies can produce for the home market, and will at the same time afford a comparative exhibition of the varying products of home, colonial, and foreign origin, which come under the description of jams and preserved fruit.

Horticultural Club.—A delightful lecture was given by Professor Boulger at the meeting of the Horticultural Club on Tuesday evening last on "Gilbert White and the Selborne Society." A report will be given next week.

National Rose Society.—At a meeting of the committee of this society, on Tuesday last, touching reference was made to the death of the Rev. A. Foster-Melliard. No less than eighty-three members have joined during the present month, thanks to the circulars in the nurserymen's catalogues setting forth the objects of the society. The metropolitan show next year will probably take place in the gardens of the Royal Botanic Society, Regent's Park, the Benchers of the Inner Temple having declined to allow the use of the gardens on the Embankment, owing to the disturbance to their members. A donation of twenty-five guineas was made to the New Horticultural Hall Fund, and it was decided to hold an autumn show next year.

National Amateur Gardeners' Association.—The fourteenth annual dinner will take place in the Crown Salon of the Holborn Restaurant, on Thursday, December 8, at 6.30 punctually. The chair will be taken by the President, Mr. T. W. Sanders, F.L.S. It is

earnestly hoped that every member will endeavour to be present, together with their friends. The tickets are 5s. each, and may be obtained from Mr. Richard Cordwell (hon. sec.), 35, Medusa Road, Catford, London.

"The Story of the Plants."—On the evening of the 8th inst. Professor R. Stewart Macdougall, Edinburgh, gave another of the lectures of his course on the above subject in the Blythe Hall, Newport-on-Tay. There was a large attendance, and Professor Macdougall's lecture was followed with the closest attention. The processes of pollination were lucidly explained, and interesting accounts given of the various methods adopted by Nature to provide for the fertilisation of flowers. The parts of the plants and their uses were also fully explained.

The planting season.—The young fruit grower is often puzzled about the selection of hardy fruit trees for planting. This refers more to Apples and Pears than any other, though such fruits as Plums, Peaches, Nectarines, and Cherries also are fairly numerous. With regard to planting I have very few remarks to make, but I would point out how necessary it is for future growers to think seriously before selecting their trees. There is no gain whatever in mere variety; indeed, in a private garden, unless it is for exhibition, it is a great loss, as by having so many sorts it often happens that there are not enough fruits of the variety most liked. The selections in THE GARDEN, page 314, should therefore be most useful and valuable to those who have not grown these fruits, but I would add it is of far greater advantage to grow say ten trees of one good variety than ten all different. To make my meaning clear I would much rather plant one hundred trees in ten varieties from the list given. In a few years the grower will then have a valuable asset, whereas if so many varieties are planted they may be interesting but not profitable. It may be urged that by having a large number some fruit, while others do not. I can safely say some of our most striking Apples at shows are very shy bearers, and some are of poor quality also.—GROWER.

Potatoes to eat.—I am extremely pleased that Mr. Engleheart has taken up the cudgels on behalf of the humble Potato, which, although of a naturally retiring disposition, has of late cut rather a dash. In this part of the country, where Potatoes are largely grown, only a moderate number of growers have become infected with the new disease, which has been diagnosed as "Potatoitis." I am acquainted with several growers who invested money in the much-boomed Northern Star. They grew an enormous crop, and now I suppose the long-suffering British public will be called in to consume it. With us, as with the majority of growers here, the variety Sir John Llewelyn is uneatable. At the present moment I am seriously thinking of forming a society for the protection of the public against horticultural "fakes," and shall be pleased to hear from any reader of THE GARDEN who is willing to co-operate. "E. L. B." has amused me. He seems to imagine that because Up-to-Date is popular its quality is beyond reproach. It is the old story of false ideals over again. As long as the grower has an enormous crop, and the produce which is put before the public is pleasant to the eye, the question of flavour is immaterial. What a dark day it will be for the market man when the palate of the public becomes so discriminating as to refuse Worcester Pearmain Apples and Beurré Clairgean Pears! Perhaps "E. L. B." will explain to me why these fruits are (like Up-to-Date Potato) "always in demand."—ARTHUR R. GOODWIN, *The Elms, Kidderminster.*

Mr. M. J. Sutton.—The Corporation of the County Borough of Reading have taken a new departure in choosing as Chief Magistrate for the coming year a gentleman who has never hitherto been connected with the active work of the municipality; but that this epoch-making selection of Mr. Martin John Sutton, of Henley Park, Oxon, the head of the great Reading seed firm, gave as great satisfaction to the members of the Council as it has done to the burgesses at large was fully demonstrated when their choice of a new Mayor was formally ratified with the usual picturesque ceremony.—*Reading Mercury.*

School children and bulb growing.

With the view of encouraging a taste for flowers among the children attending the schools at St. Cyrus, N.B., the chairman of the School Board, Captain F. G. Forsyth Grant of Ecclesgreig, has again given over 3,000 Hyacinths, Narcissis, Tulips, and Crocuses to the children for cultivation during the winter. This is the second time Captain Grant has given bulbs, and the experience of last year showed that good results had followed his generous action. He is also going into the question of establishing garden schools.

"The Picturesque in Parks and Gardens."

This was the subject of a valuable lecture to the members of the Edinburgh society on the evening of the 2nd inst. The lecture, which was by Mr. James Craig, was illustrated by lantern slides, showing admirable examples of picturesque spots in parks and gardens in various parts. There was a crowded attendance.

Chrysanthemum Mrs. Chas. Davis.

Those who saw this variety on the stand of Mr. Norman Davis, at the recent National Chrysanthemum Society's Crystal Palace Show could not fail to be impressed with its rich beauty. It is an English-raised seedling, and is the result of a cross between two popular exhibition varieties, viz., Duchess of Sutherland and J. R. Upton. The blooms have all the grace and elegance of the first-named flower, and also possess more substance than that variety. The petals are very long and broad, drooping and curling most pleasingly. The colour is very striking, being a deep rich shade of orange-yellow aptly describing the tones represented. There is no other flower of Japanese origin so rich and beautiful. The floral committee of the National Chrysanthemum Society have asked to see the variety again.—D. B. C.

Silver variegated Elms.—Both the broad and narrow-leaved varieties are very effective in the form of well-developed specimens. They are slow of growth, and for that reason the ground should be well prepared for them. If small trees are to start away freely, and the owner wishes to reap the full benefit of his outlay in the shortest possible time, he must deeply stir and well manure the ground before planting.—J. C., *Byfleet*.

Chrysanthemums at Ballathie, Blairgowrie.

On Thursday, the 3rd inst., through the kindness of Colonel Richardson, Ballathie, the public had an opportunity of visiting the gardens there, and of enjoying the magnificent display of Chrysanthemums and other flowers of the season. Visitors from a considerable distance entered the gardens, and greatly enjoyed the display. The Chrysanthemums are remarkably good this season, and Mr. Davis, Colonel Richardson's gardener, was much complimented on his success. Many of the blooms are superb.

Milnathort Horticultural Society.

At a dinner held in connexion with the Milnathort Horticultural Association on the evening of Friday, the 4th inst., a presentation was made to Mr. Mann, who has acted as hon. secretary for seventeen years, as a mark of recognition of his valued services to the society during that time. The presentation was made by Mr. Stark of Struan Park, and Mr. Mann suitably acknowledged the gift, which consisted of a handsome gold Albert with appendages, suitably inscribed.

Memorial to the late Dean Hole.

The Mayor of Rochester (Mr. F. F. Smith) writes: "At a recent meeting held at the Guildhall, Rochester, it was decided that there should be in the city some permanent memorial of the late dean, and amongst those who expressed their approval and sympathy with the movement were the Bishop of Rochester, the Bishop of Southwark, the Lord-Lieutenant of Kent (Earl Stanhope), the Earl of Darnley, General Sir R. Hart, Admiral Craigie, C. Tuff, Esq., M.P., the Chapter of Rochester, the Mayors of Chatham and Gillingham, and several prominent residents of the district. It was also decided to form a large general committee, with an executive committee, and Mr. F. H. Day, of The Precinct, Rochester, was appointed hon. secretary, and Mr. W. J. Upton, of the London and County Bank, Rochester, hon. treasurer. Among the suggestions received for the

form of the memorial were (a) a recumbent figure of the late dean in the cathedral, (b) a new pulpit in the nave, (c) the restoration of some particular portion of the cathedral. It was thought best that the committee should make no decision until the views of the various subscribers were known, and it was seen what amount of money was likely to be available. It is desired to make the general committee as influential as possible, so that the movement may become generally known and receive support, and as there are many in different parts of the country who would be glad of the information of what is to be done, I should be glad if you would publish this letter in your paper. I shall be glad to receive communications from any persons who would be willing to contribute to the memorial, or who would desire further particulars sent to them." We may remark that the National Rose Society will have its own memorial of its late president.

Royal Scottish Arboricultural Society.

Information has been received that a silver medal has been awarded at the St. Louis International Exhibition to the Royal Scottish Arboricultural Society, for their interesting exhibit of photographs of American conifers grown in Scotland. There are twelve pictures, enlargements of photographs taken at Scone and Murthly by Mr. A. D. Richardson, landscape gardener and forestry expert, Edinburgh, the photographer of the Royal Scottish Arboricultural Society.

Chrysanthemum Miss Elsie Miller.

This is another of the beautiful acquisitions of the present season, and subsequent to the meeting of the floral committee of the National Chrysanthemum Society at the Crystal Palace was seen on Mr. H. J. Jones's stand. This new Japanese variety was raised by Mr. George Mileham of Leatherhead, who has given us so many fine sorts in recent years. In the present instance the plant is a seedling from the beautiful flowers of Miss Olive Miller, and the blooms exhibited on the occasion referred to represent an ideal type of the Japanese flower. The florets are very long and drooping, and they are also of medium width. It belongs to a type of Japanese bloom, of which there are too few representatives. The colour may be described as mauve-pink on a white ground. This variety was recently certificated by the National Chrysanthemum Society's floral committee.—D. B. C.

LILIES IN 1904.

(Continued from page 322.)

FOURTH in order of merit I must place *L. RUBELLUM*, which was as sweet and pretty as ever. One stem carried four flowers; one or two were unfortunately blank, but the rest had twos and singles, and the combined effect of their chaste pink blossoms against the dark background of Ferns and Lilac shoots was most pleasing. I saw this Lily spoken of rather contemptuously in *THE GARDEN* not long since as being "miffy" and short-lived, but I think the writer of such a character should give poor *rubellum* another trial. It seems quite happy here anyhow, in a poorish light soil full of stones and brickbats on a bank sloping to the north-east, which is overshadowed and robbed by a hungry, aggressive Lilac bush. I moved all my bulbs to this spot from a peaty *Rhododendron* bed in full sunshine, where they had previously merely existed for two years, in consequence of a letter in *THE GARDEN* from Mr. Barr describing the natural habitat of the bulbs he met with in Japan. It is a lovely Lily, and has lasted so long and done so well with me that I have promoted it to the "reliable" list, though, for all that, it is quite possible that pride will have a fall some day. After *rubellum* I suppose I must put

L. SZOVITSIANUM, though my old clump was very erratic and not as floriferous as usual, and

the bulbs elsewhere, planted from two to three years only, did not come to much. The six bulbs in the original group sent up their spikes most irregularly; one was in full flower when the last straggler had only just poked its nose through the ground, and there was consequently no great display at any one period. Still, there was a lot of bloom on the whole of a very satisfactory kind. A good sixth was

L. PARDALINUM, which flowered strongly and well, though the blooms lasted but a short time.

L. giganteum, seventh, was a success, three spikes flowering, and one of them being very fine.

L. Grayi did well, though not so well as last year, and the *Martagons* were quite satisfactory, especially *L. M. dalmaticum* and the variety *Catanii*. The elegans section were very handsome, too, and croceum was, as usual, admirable.

Then, a long way behind the leaders, "walking in with the crowd," as the racing phrase has it, were all my other poor *Lilies*, headed by *Parryi* and whipped in by *speciosum* and *sulphureum*. Though healthy-looking and quite free from the suspicious brown blotches on the stems and shrivelled leaves of last year, *Parryi* was rather feeble and diminutive. I do not think there were more than fifty flowers on the whole lot of the old bulbs, though a few of the seedlings of 1899 had a flower or two, both those grown in pans in a cold frame and those sown out of doors in a peaty corner. I have now just planted the former in the so-called "bog," where the old ones are. The seed I saved this summer was small, and though I did sow some in a pan I do not believe it will ever germinate.

L. SPECIOSUM seems to die out gradually with me, almost as surely as *longiflorum*. *Melpomene*, which was very fine last year and the year before, did nothing at all this autumn, while *Kratzeri* and *rubrum* were very weak.

Either I have yet to discover the proper site and soil for this brilliant species or I must reluctantly give it up, as I have *longiflorum*, except for greenhouse treatment. It would be a great boon to Lily growers if one of their number who has really succeeded in establishing the *speciosum* section would kindly give the rest of us the benefit of his or her experience in the pages of *THE GARDEN*.

I have already mentioned *sulphureum*, and can only add that one of my two bulbs never came up at all, though it bore a single flower on a 7-foot stem last year, while the other produced a short stem about 3 feet high, thickly dotted with bulbils, but flowerless. Nevertheless, though I prefer to pin my faith on the bulbils, I do not despair of better luck with both bulbs another year, for in the cultivation of *Lilies* out of doors one soon gets accustomed to the caprices and vagaries of these coy divinities, some of whom seem to find it a pleasant and desirable change to "sleep the clock round" and mislay a year's labour in the upper world now and then.

L. Brownii was unsatisfactory, some of them refusing to show themselves at all, and those that did come up carrying a poor display of bloom.

L. excelsum, too, was nothing like as good as it has been, and my old-established *tigrinum*s were also poor. *Auratum*s in their second year were fairly good, and as they flowered most irregularly they made a useful show for a long time. My original bulbils, planted five and six years ago, are apparently done for. I have no suitable place for them, and must reluctantly abandon all hope of ever establishing them here, though my friend Mr. Herbert Green of Tovil, in this neighbourhood, had a fine display

from quite old bulbs in his Rhododendron beds this year.

This is about all of any interest I have to say about my "senior" Lilies. Of the "juniors," or those planted last autumn, some came up and some did not. There were certainly more labels than Lily stems, though I took no end of trouble in making a comfortable peaty bed in a sheltered spot for them, and expected a grand show.

A few were, however, quite worth working for, notably some new (to me) forms of *speciosum*, one of which, *monstrosum*, was truly splendid.

Pomponium verum did well also (my old bulbs refused to flower), and so did *Humboldtii magnificum*, while I was very much pleased with the doings of *Wallacei*, a handsome apricot-coloured species which I had not tried before. Some new *canadense* flowered weakly, as did the old ones; but they are not really in a suitable place, and I cannot hope to do any good with them in the comparatively dry soil of even my dampest peat bed.

I had a nice bloom on a single *colchesterense* (*odorum*) in a Rhododendron bed, and am going to try one or two more bulbs. It is a handsome flower, and if the bulbs are planted on their sides, Japanese fashion, and covered with sharp sand in a well-drained soil, they should be a welcome addition to our Eulirion Lilies. *Superbum* gave a few flowers, but I am sadly in want of a swampy place for this Lily, as for *canadense* and others. Two bulbs of *tenuifolium*, though planted in a very special soil and warm corner, did no more than produce weak flowerless stems. I do not think it is much use attempting the cultivation of this delicate gem out of doors.

This completes, I think, my sad story of the Lilies for 1904, the result, in a great measure, of the cruel weather of 1903. I cannot, even in the words of the fairy tale, say of my poor bulbs, "and they lived happily ever after." Some of them, indeed, may do so, but I fear many

are permanently disabled or killed outright by the long periods of combined cold and damp they have been exposed to. Perhaps—and let us hope it may be so—we shall have a real good bloom in 1905, after the far more genial summer and autumn we have fortunately just been through. But if fate be still unkind let us not be disheartened. Let us remember that it is the damp rather than the cold that is against us, and let us take up and replant our old Lilies and put in new ones with yet more care, and more attention to the all-important subject of drainage. Stagnant moisture is responsible for far more failures and deaths among Lilies than a thermometer down to zero for weeks on end.

Yalding.

S. G. REID.

TREES AND SHRUBS.

THE BUSH OR TREE IVIES.

IT should be more widely recognised that in the finer varieties of the bush or tree Ivies we have some of the most perfect of evergreens. There is a freshness, cheeriness, and distinctness about these shrubs that commend them to all who wish for a permanent feature in the garden of an evergreen character without a fear of introducing a dull and monotonous effect. The day will come, and, let us hope, soon, when diverse forms of Ivy will be much sought for, and why?—because of their manifold merits. We enjoy them as groups on the margin of the lawn, or in front of existing shrubberies; and it should be remembered that the green varieties are of the greatest use for planting under trees and in smoky towns. The gardener near a great city, such as Birmingham or London, is frequently perplexed as to the plants to select for their growth under such conditions. A



IVY AMURENSIS, SHOWING ITS VALUE AS A POT SHRUB.

hundred things that succeed elsewhere fail miserably; but not the Ivies, which even seem to enjoy their sooty environment. When September merges towards October the little balls of flowers appear, and every observer of the English hedgerow when all else is bare knows the sweet scent and colouring of the flowers of the Ivy, the one winter flower-picture to carry one's thoughts to the sunny time of spring. Bush Ivies may be planted now with perfect safety. The best selection comprises the following, all of which we have seen in large groups in Messrs. Fisher, Son, and Sibray's nursery at Handsworth, Sheffield, where these shrubs receive special attention. Of the green varieties none is daintier than *Amurensis*, which we have had occasion to describe before; *Canariensis*, *Rhomboidea obovata*, *Taurica*, and the yellow-berried variety with bright golden fruit which shines in the winter sunlight. The golden-leaved forms have their foliage splashed and blotched with yellow of various shades, and one of the best is *Gold Blotched*, a name that indicates the character of the leaf-colouring; *Palmata aurea*, and *Spectabilis aurea*.

GINKGO BILOBA.

THIS, the Maidenhair Tree, although introduced into this country so far back as 1740, does not seem to have found much favour with planters, a rather remarkable circumstance when we consider that it is an absolutely unique tree. Many exotics resemble in foliage either a fellow foreigner from some other country, and in some instances our own native trees, but this cannot be said of the Ginkgo. Also, it may be claimed in its favour that it is equally as beautiful. It may, I think, be safely asserted of this tree that it is admirably adapted for any site where a deciduous tree of average size is required. It may with advantage find a place in any



WALL OF THE BEAUTIFUL IVY AMURENSIS AT HATFIELD (THE SEAT OF THE MARQUIS OF SALISBURY).

ornamental planting, and should be assigned a prominent position. Attention has been directed to the fact that it is a fine autumn tree, the decaying foliage very clear and pronounced in tint, and it may also be noted that the foliage is retained a considerable time, as many exotic trees, if a sharp early frost comes, are often completely stripped in twenty-four hours. B.

JAPANESE MAPLES.

I REMEMBER seeing a collection of the then newer forms of these Maples exhibited in London some forty years ago, and at that time there appeared to be a future for them, for they were very bright and interesting. But somehow they failed to hold their ground where introduced in the eastern counties and one or two other places where they were tried, though I think in the south they have been more satisfactory. The fault has been, where I have seen them planted outside (I am thinking now chiefly of the palmatum varieties), that they refused to grow freely and develop their lovely tinted foliage. In one sheltered spot where the soil had been specially prepared they have done better. But, even where they are not a success planted outside, they are worth growing for their decorative value under glass in the conservatory or in corridors in pots and tubs. There seems to be an increased demand now for Japanese plants, and these Maples are certainly worth attention for tub work on terraces or in the cool conservatory. Among the varieties worth notice are *Acer palmatum atropurpureum*, *dissectum palmatifidum*, *roseum variegatum*, *septemlobum*, and its varieties *elegans*, *laciniatum*, and *viride*. Of course, everyone who loves country life knows how beautiful the American and Norway *Acere* are in woodland scenery. E. HOBDAY.

COLOUR IN THE MIXED BORDER.—VI.

FOR section 7 we have again to employ blue flowers, and this can be dismissed with a few words. I should advise, as the next colour with which we have to deal is orange, that as far as possible the deeper and richer shades of blue at command be selected. These will assimilate better with the compound colour than the paler tints, and, again, I would use foliage plants. *Bocconia cordata* is very effective, as it will grow under favourable circumstances some 8 feet high, so it must be planted well back. This and the *Tiarella cordifolia* are both too little used; the latter is a lovely thing, and should be planted in the white section. Its leaves make a compact mat of tender green; it must be divided every two years, and it will thrive anywhere and everywhere. It would do equally well among the pink flowers, as its pretty creamy blossoms are tinged with pink.

For the orange section, No. 8, plant for a hedge the charming old-fashioned *Kerria japonica* or Jew's Mallow. It will supply an abundance of its pretty orange-tufted flowers for the spring months, providing it is never pruned. *Rudbeckia Newmanii* and Miss Mellish *Helianthus* are fine tall subjects for autumn flowering, as also are the *Kniphofias*, and there is actually an orange Hollyhock (Prince of Orange), which was one of Sutton's novelties last year. *Heliopsis scabra*, or, better still, Latham's *Heliopsis*, have fine rich orange blossoms. A good clump of Oriental Poppy, also called Prince of Orange, and in front of these, which are apt to grow very tall and somewhat coarse in rich soil, plant a handsome group of day Lilies, *Hemerocallis Dumortieri*, and *Lilium tigrinum* and *L. croceum* for different months of the summer. *Trollius Gibsonii* or *Fortunei*, *Orobus auran-*

tiacus, *Geum miniatum*, and *Gaillardias*, selected for their orange tints, will make quite a splendid show; but stake the *Gaillardias* early, so as to train them in the way they should go, and they will repay you. There are some lovely *Mariposa Lilies* of the right colour, but I do not think it is any use attempting to plant these exquisite and too little cultivated subjects in a mixed border, as they want special treatment as to soil and position to secure success in their cultivation. Wallflowers of the old double orange variety are difficult to get now, but the colour is marvellous. I should also select a few *Cannas*. *Chrysanthemums* for early flowering may be had, and in the foreground alpine and Iceland Poppies. I should have plenty of these

invaluable little perennials, for one must make the most of all our orange flowers. I think some of the Parrot Tulips might be admitted, and also the Orange Phoenix *Narcissus* and *Polyanthus Narcissus*. Of annuals there are not many, and here we certainly must not despise the homely Marigold culled by Simple Susan, for it now figures as Sutton's Orange King, and so reaches a height undreamt of by the ancient *Calendula officinalis* of the apothecary. Next in smartness come *Gazania splendens* and *rigens*, which, being half-hardy, must be grown in heat and planted out in May. These Sunflowers, I warn you, close when their monarch sets. For the rest we can have *Eschscholtzia crocea* (*Lasthenia glabrata*), a pretty annual from 8 inches to 1 foot high. Sow this in autumn for flowering with Wallflowers. Plant it thickly, but thin it out well. *Nemesia Strumosa Suttonii*, too, has an orange variety, and you must sow double Sunflowers for autumn flowering in the background. Of course, it would save a great deal of trouble, and doubtless be more effective

if the yellow and orange flowers were mixed in the sections 3 and 8, but I am not sure it would be as artistic. This, however, must be left to the taste and fancy of the reader. I have undertaken to carry out a certain colour scheme as well as I can, but after all it must be theoretical. The softer mauves and lilacs accommodate themselves equally well to orange or yellow. The mingling of ornamental Grasses and foliage plants will prevent any harshness of effect, and will increase the values of the yellow and orange, these colours being very assertive in half lights. The mauve or lilac flowers are a little confusing

if they are to be kept distinct from the purple tones. So many horticulturists persist in calling mauve flowers blue. There are two tints really, a bluish tint which is mauve, and a pinkish tint which is lilac; both tints are stolen from purple, and are therefore not true colours, but mauve is not blue, which is a primary colour. We can find a true mauve in a variety of named *Phloxes* and in an infinity of *Michaelmas Daisies*; but there are no blue *Asters*, any more than there is a blue *Primrose*, though there is an exceedingly disappointing little flower that figures as such. There are beautiful *Hollyhocks*, double and single, the Fig-leaved form (*Althæa ficifolia*) being exceedingly pretty, while the Sweet Peas *Countess Radnor* and *Mrs. Walter Wright* ar



THE MAIDENHAIR TREE (GINKGO BILOBA) IN THE ROYAL GARDENS, FROGMORE.

not bad attempts at the colour, and there is the earliest flowerer of all, a Sweet Rocket. The next tallest perennial is called *Erigeron speciosus superbum*; this, too, is wrongly described as blue. To my thinking this is a charming plant; it is extremely floriferous, and blooms from early summer to late autumn, but this, too, wants careful tending and tying up. Then, of course, there are plenty of early-flowering *Chrysanthemums*. What a useful race of plants these are, just coming in when they are most wanted! I wonder what we did without them! The colours of the *Canterbury Bells*, too, are increasing in number,

and among last year's novelties was a mauve *Campanula calycanthera*. This colour is charmingly seen in Sweet Williams, Spanish Iris, Iris sibirica, and *Verbascum phoeniceum*, while for the foreground double and single Primroses and Violas, *Hepatica lilacina*, and *Aubrietias* are awaiting your orders, with pale Auriculas and Anemones, double and single. There is an old-fashioned Pink, without a name, that is of a most delicate shade of mauve. We have not done badly, and we still have annuals to complete our collection. China Asters, of which the pale lilac are the prettiest of all, and Mauve Beauty Stock, Linum, Scabious, and *Collinsia bicolor*; Poppies, too, in the French variety, and Phlox Drummondii, mauve, with a white eye, and Lobelia, though this perhaps is a little too purple. Foliage plants can be used with great advantage, and variegated sorts look well with the mauve tones. Soon, I believe, we shall have mauve Delphiniums. I had a sport in my borders quite a true mauve, but lost it again. We want a few taller plants to give strength to the centre of the plots, and then we should have a charming and delicate bit of colour in contrast to the vivid orange.

AUGUSTA DE LACY LACY.

SOME GOOD AUTUMN ROSES.

AS I write from a Midland garden, in mid-November, the wind blows half a gale, the sky is leaden all around, and the first real storm of autumn is evidently about to burst. Were it not for this untoward weather, I might, with quite a moderate stretch of imagination, describe the picture before me as summerlike. I am looking across a Rose garden that was planted some two years ago. The Roses are in beds, with grass paths between. Most of the plants bear at least one or two good flowers, on many one might count a dozen, and some are still in full blow of blossom and bud. The autumn has been an ideal one for Roses for the garden, whatever it may have been for exhibition blooms, and in this Midland garden from which I write Roses have been cut uninterruptedly from June till now, and still one could gather basketfuls of passable flowers. One cannot see a profusion of Roses in November without realising how much the gardener owes to the hybridist for his untiring efforts in the direction of improving old and raising new varieties, varieties that not only produce beautiful flowers, but produce them unceasingly as long as the plants are green. Easily best among the Roses of which I write is

Corallina.—The strong, reddish 3 feet high shoots bear quantities of coral-red flowers, and make a unique, delightful display. As with most other Roses that bloom in the autumn, the flowers have not the clear colouring that distinguishes this sort in the summer time, but the Rose enthusiast easily overlooks a small matter like that. In the case of

Liberty, however, one is liable to be disappointed for a similar season. This Rose, whose colour in summer out of doors or in winter under glass, leaves nothing to be desired, assumes a purplish tint as autumn approaches that is not pleasing. It blooms freely enough late in the year, and if the buds are cut early and allowed to open in water the purplish tinge is not so apparent. A Rose that is comparatively little known is

Mrs. Stephen Tresseder, a white variety of that lovely Tea Rose Anna Olivier. It is a most valuable Rose, wonderfully free both in summer and autumn. The flowers are delicate, however, and are liable to be disfigured at this time of year by wind and rain.

G. Nabonnand has often been mentioned as a lovely Rose and a good one for flowering late in the season. Although the blooms have not quite that delicacy of rose and yellow colouring that distinguishes them earlier in the year, they are still most welcome.

Augustine Guinoisseau is not the last Rose of summer, but the last Rose of autumn. This variety yields flowers later than any other, it is always the last to say good-bye. Its loose, curled petals, always irregularly disposed at various angles, give to the flower an untidy though quaint appearance that makes it many friends. In the disposition of its petals, perhaps more than by any other character, this variety shows its affinity to La France. A white La France was the raiser's description of it.

Clara Watson gives some delightful buds at this time of year, and they are produced on such strong stems as to make a most useful decoration for a large vase. The pale flesh-coloured flowers are borne in profusion.

La Tosca is a Rose that one does not hear very much about. The pale silvery pink blooms that are now fairly plentiful on the ten or a dozen plants seem to show that it is as valuable an autumn Rose as it is a beautiful one.

Armosa, a Bourbon variety, is more often seen. Two beds of it are almost bristling with buds and flowers in this Midland garden, and for quantity of bloom it would be hard to excel. It needs to have a bed all to itself to show to advantage, then the deep pink flowers are seen at their best.

Zephyrin Drouhin, another Bourbon Rose, still has flowers, though these are not remarkable so much for their profusion as for their sweet fragrance, which is most marked. This Rose may be described as a low climber, and is perhaps best suited when planted against a short trellis.

General Schablikine, with its cherry-red buds and glaucous red-spined stems, makes a delightful plant for the garden in autumn, and should certainly be planted by those who like to have Roses out of doors as long as possible.

Grüss an Teplitz hardly needs any further recommendation, for it has so often been extolled in THE GARDEN. The crimson-red flowers on the strong erect shoots are produced almost as freely now as in summer. A valuable characteristic of this variety is that it is rarely, I might almost say never, attacked by mildew.

Laurette Messiny is also charming now. The flowers have lost a little of their delicate tints of course, but still they are very beautiful. It is curious to note the variation of colour in the summer and in the autumn flowers of the same Rose. Lady Roberts that is rich orange when typical is now quite white. Anna Olivier does the same thing, and so do other pale yellow Roses, while many of the reds lose some of their attractiveness in a purplish tinge.

Y. Z.

A GENERAL CALENDAR.

VIOLETS.

SINCE the plants were lifted and placed in frames the weather has been most favourable for them. The flowers have been abundant until now, and the plants quite free from spider, in spite of the dry weather during July and August. Many growers make a great mistake in coddling the plants after putting them into frames in October, keeping the lights over the plants and sprinkling them daily to enable them, as they say, to become established in their new quarters. Such treatment is quite unnecessary and injurious, and results in the leaves being drawn up. Plants properly grown and furnished with good balls of roots require no coddling or sprinkling, but simply a good soaking and full exposure day and night as long as the mild weather lasts, drawing the lights over at night, but tilting them up when slight early frosts occur.

Hepaticas.—These will not thrive in all places alike. Near large towns, with smoke and fog, they never look quite happy, often losing their leaves in winter, and with them much of their beauty. They also dislike compact and heavy soils, and should not be planted in north borders. With sufficient moisture most kinds thrive best in half shade, or, rather, screened by summer-leaving trees, and at other times exposed to light and air. When well planted Hepaticas may be left for many years, with only an occasional dressing of rotten

leaves or manure to correct their tendency to rise out of the ground. Where old tufts show signs of exhaustion these should now be taken up and carefully divided, and, if skilfully done, the plants soon recover from the check and grow with renewed vigour, fresh rich soil will always improve the flowers. Cut blooms are very useful for button-holes and small vases. A few plants should be wintered in frames and flowered under glass to provide early and perfect flowers for decoration.

Fig trees on walls.—Where it is necessary to lift or root-prune the work ought to be proceeded with without delay. The shoots should be freed from the walls and thoroughly cleaned before frost sets in. It is far better to do this work now than in spring, when the buds and young Figlets are swelling. In some places it is necessary to protect the growth during winter. Protection should be delayed as long as possible, in order that the shoots may get hardened previous to being covered. To those who contemplate renewing their trees I would not advise planting in the open till spring, for as plants may usually be procured in pots there would be less risk of their suffering should the winter be severe.

Forming Asparagus beds.—The work of preparation should now be begun. Naturally well-drained, free-working soils will produce good Asparagus without any special preparations for the crop, but cold clayey soils are not suited to Asparagus culture. Care must be taken in preparing the sites accordingly. Beds 4 feet wide and raised above the ordinary level answer well in the case of cold positions and heavy soils. A single pipe drain may be run down the centre of each bed, sinking this below the subsoil. Cover with coarse mortar rubbish, and on this wheel various accumulations of a nature to decay steadily and yet retain porosity, the upper layer to be formed of leaf-soil, fine mortar rubbish, sand, ashes from the garden fire, decaying stable manure, or any other material that will lighten and otherwise fit the soil for the production of Asparagus in large quantities, and for many years in succession.

Protecting Strawberries in pots.—There are several methods of protection, the old system of placing the plants one above the other is not good, for by this treatment the plants often get very dry. Strawberries for forcing should never be allowed to get dry, even when at rest. Cold frames are by far the best places in which to protect the plants. Here they may be plunged well over the rim of the pots in fine ashes, or, what answers equally well, dry leaves. These may be had in abundance at this season of the year. There need be no hurry to get them under glass as long as the weather remains open. Give a thorough watering before placing in their winter quarters, and care should be taken to see that the drainage is perfect.

Turnips.—These should be lifted before the frost is sharp enough to injure them, and for present use a few may be stored away in sheds or pits and covered with a little straw. For those to be kept through the winter I know of no better plan than to set them in rows, just as they are brought in from the beds, under a fence facing east, and nearly covering them with dry leaves. In this we always keep ours, and I invariably have good Turnips until the end of April.

Norwich.

T. B. FIELD.

RIVIERA NOTES.

A SUMMER of great heat and drought has left its mark on this coast, but the Palms, where sufficiently watered, have grown well, and the Australian and Cape shrubs and trees are all the better for the severe baking they have undergone. Roses have not yet made much growth, as the rain has been so long in coming, but in well cultivated ground they have not really suffered. It is the softer-growing things, such as Veronicas, some of the Buddleias, and Eupatoriums that are stunted or dwarfed by what they have had to endure. The heavy dews at

night are now refreshing vegetation, and preparing for the rain that doubtless will soon fall. Each year, on returning, the eye seeks for the combinations or contrasts of colour that have proved themselves in other seasons, and I note that nothing gives more lasting pleasure on the south walls than Heliotrope and white Lantana, with a good hedge before it of the deep red Geranium Paul Crampel, or Denil de Miribel if a taller one is required. The coral-pink Fratelli Ferrairo makes a good variation when reds are not needed. *Bignonia venusta* and the ever-flowering *Bougainvillea sanderiana* are a startling combination of orange and rosy mauve. *Tacsonia ignea* and white Lamarque Rose are matchless for pillars, but loveliest of all just now is the climbing annual *Mina lobata*, which wreathes pillars, posts, trees, and hedges with its forked sprays that shade from cream to crimson, and set off the sky blue *Ipomæas* or the blazing *Tropæolum lobbiana* that climbs so high. There is no flower that I know of that is of so pure a shade of light blue as this Indian annual *Ipomæa*, but it does not last as the *Ipomæa ficifolia* does, which persists into January in good seasons.

Everybody grows the well-known *Salvia splendens*, but how few know or grow the noble *Salvia frutescens*, which waves its large heads of scarlet bracts and flowers in the breeze at a height of 12 feet or more from the ground, when allowed to develop itself properly. By its side the fragrant *Buddleia asiatica* scents the air with its small white flowers in countless sprays, and rises to much the same height with a little help in the way of a strong stake. This should not be omitted from any winter garden, as its flowering is so prolonged and its fragrance so delightful.

Owing to the drought the growth of Roses and bulbs is much retarded, and probably December or January will give us better Roses than this year's November can offer. I see, however, one rather new pink climbing Rose that has already some good blooms, and promises to give a long succession in the coming months. Mme. Ernest Calvat is a strong growing Rose, said to be a seedling (or sport it may possibly be) of Mme. Isaac Péreire, a Rose of great value in England, but which is here quite put into the background by this bright pink flower of good size and great fragrance. The richly-coloured and very vigorous Noella Nabonnand is an excellent contrast and companion to this newer Rose, but it needs hard autumn pruning and abundant watering to make it start in such a season as this.

Big bushes of the orange-flowered *Leonotis Leonurus*, with many whorls of blossom on every shoot, are gorgeous when well set off by spreading masses of the old but ever welcome *Aquatium mexicanum*, which, when cut to the ground in August, makes now an enduring patch of soft and restful grey so welcome in this land of winter sunshine.

Rhus trifoliata is another very fragrant and elegant habited tree now in flower. It is so curiously like an *Acacia* in foliage and growth that, until its little greenish star-shaped flowers are fairly open, it is hard to believe it is not an Australian *Acacia*. As it flowers in November, it is not now so much grown as it deserves. Its elegance of growth, its freshness of slender green foliage, the fragrant flowery panicles that feather the length of the pendent shoots—all combine to make it attractive in the highest degree.

Perimenium discolor is bright with its little bouquets of golden Daisies on slender shoots, with narrow grey foliage. It is a plant that

has thoroughly enjoyed this dry hot season, so I fear it would not be very satisfactory under glass; but it is well worth a place here, as is also the old Cape shrub *Eriocephalus capensis*, which, with its neat heads of white Daisy-like flowers, is an excellent foil to *Perimenium discolor*. Both are in beauty in November and December, but *Eriocephalus* has another season of interest, as its flowers turn to white silky heads of fluff that remind one of Cotton Grass that is short in staple.

Nice.

EDWARD H. WOODALL.

THE FLOWER GARDEN.

CLEMATIS MONTANA.

THESE are many larger-flowered species and varieties, but there are few more beautiful than the Mountain Clematis. Not only is it very beautiful outside, but the shoots may be had of almost any length for decoration, and the individual blossoms are fine for any purpose. When placing on the turf or in borders robbed by tree roots the plants should be given a good start by taking the soil out to the depth of 2 feet, and filling this in with good loamy compost. Obtain plants, if possible, that have not become badly pot-bound, as these are the longest in starting. Plant firmly, and only loosely tie the branches at first, this giving the soil a chance to settle without straining the branches. The plants need a season or two to get thoroughly established, but after this flower profusely. H.

SOME NEW GAZANIAS.

THE *Gazanias*, especially those recently introduced, are so little known that it may not be out of place to give a short description of them. The distinctive characteristic of these beautiful South African plants is a conspicuous ring of spots, which adorns the base of the florets and forms a clearly-drawn and well-marked circle round the disc of the flower. Some species or hybrids are self-coloured, but more often the flowers are spotted. The spots are black, deep violet, or marone in colour; frequently a white dot in the centre of each spot or the irregularity of the design heightens the

effect of the flower. In a monograph on these plants, recently published, the different species, hybrids, and variations which can be obtained in the horticultural market were described, and some of these have been used for the creation of the new hybrids whose description we now give. The following six have been chosen from more than 400 seedlings, and, in order that their qualities as flower-producers and for good shape might be well judged, they have been grown for two years. We can therefore recommend them with every confidence.

Diapré.—Vigorous, floriferous plant; large, well-shaped, full flower of a rich bright yellow; yellow disc, surrounded by black spots, with a white dot in the centre.

Bicolore.—A dwarf plant, rather inclined to spread, with lovely white flower, tinged with sulphur on opening, then becoming pure white; yellow disc, surrounded by a yellow border, then with a row of black spots; sometimes has a white eye.

Fleur d'Or.—Vigorous plant; large flower, rising well above the foliage, of a beautiful deep yellow, with the disc surrounded by a crown of black-brown spots.

Etoile.—A very beautiful variety; linear foliage; very large flower, star-shaped, white at the edges, sulphur-white towards the base, where there is a row of black spots; a very free and beautiful variety.

Papillon.—It might almost be said of this variety that it is a *Gazania splendens* with white flowers. The plant is dwarf and spreading; flowers beautiful and large, white in colour, adorned round the disc with black spots, dotted with white in the centre; an excellent plant for borders.

Rayon de Soleil.—Vigorous; flowers very elegant and well opened, of a beautiful pure bright yellow; very distinct, and remarkable for its colour. At the time I wrote the description of these flowers (August 15) the plants had been in blossom since May; this shows how free and continuous flowering they are. If to this it be added that the *Gazanias* accommodate themselves to almost any soil, and that they delight in full sun, in situations where few other plants could stand it, it will be acknowledged that these novelties, which are distinct from any hitherto existing, should be well received by those who love the beautiful among flowers. These varieties can now be obtained from M. E. Thiébaud.—JULES RUDOLPH, in *Le Jardin*.



CLEMATIS MONTANA AND WISTARIA OVER THE "GREEN MAN" INN AT FARNHAM ROYAL, SLOUGH.
(From a photograph kindly sent by Mr. W. J. James, Woodside, Farnham Royal.)

NOTES ON HARDY PLANTS.

LOBELIA FULGENS.

FEW plants can be found to give a finer effect during late summer and autumn than *Lobelia fulgens*, especially in its robust garden form known as Queen Victoria. It is surprising that this variety is not more popular, for the maroon-coloured leaves and stems and vivid scarlet flowers never fail to attract attention. It may be a little tender as a herbaceous perennial, and probably is so in the colder parts of the country, but on the South Coast it gives no trouble, except that after the flower-stems have been removed the crowns, for precaution's sake, are covered with a slight mound of light soil, which is raked off again when all fear of frost is over in the spring. We find this better than taking up and sheltering the plants in a cold frame, a plan which is often recommended. If division or renewal of soil is advisable it is a simple matter to lift the crowns in April, replanting them at once in the fresh site or compost, when they will grow away without a check. Enquiries are often made for good plants suitable for permanent bedding. Here is one that may be suggested and recommended. Before the flower-stems begin to rise, the tufts of dark leaves cover the soil, and their sombre colouring is not amiss in the universal greenery of early summer. Later on the tall spikes, 3 feet to 4 feet high, are brilliant enough to satisfy the most ardent lover of colour. If a combination should be desired, bulbs of *Galtonia candicans* may be interspersed and will flower at the same time as the *Lobelia*, and such an effect has been much admired, but nothing looks better than the *Lobelia* massed by itself.

It is quite easy to work up a good stock as it grows freely from seed, plenty of which has been ripened this year. Most of our plants have been raised in this way, with scarcely any variation as to quality. Seedling plants, however, must not be expected to flower the first season. If possible, the seed should be sown as soon as ripe, and the seedlings, which are very minute, pricked off as soon as they can be handled into small pots, which can be set in saucers kept frequently replenished with water. *Lobelias* of this class are almost, though not quite, water plants, a fact learnt in gathering *L. cardinalis*, a nearly allied species to the Mexican *L. fulgens* under notice, amongst the water-washed stones on the bank of a Canadian river, as well as our native *L. urens*, a rare bog plant of Devon. The difference in the progress of seedlings treated liberally with regard to water and those grown in the ordinary way, and possibly kept rather dry, is remarkable. A thorough soaking now and then helped our clumps through the late dry season whenever they showed the least sign of drooping, an attention which was amply repaid.

A variety with deep rose-coloured flowers, which was seen in great beauty a year or two ago in Mr. Maurice Pritchard's nursery at Christchurch, is also very fine and well worth growing. K. L. D.

ANTHOLYZA PANICULATA MAJOR.

THE broad, fluted leaves of the typical *Antholyza paniculata* are so handsome, and its scarlet and yellow flowers so striking, both in colour and in

form, in late autumn that it might well be planted with advantage in many gardens. It is also hardy enough in most parts of these islands if planted 6 inches deep, and, in cold and heavy soils, slightly protected with dry ashes or litter. Those who wish for a plant of distinct appearance may well grow it, keeping the corne in dry sand until spring, or planting them in pots until March or April, when they may be planted out in their permanent situations.

It is not generally known that there is a larger flowered and larger leaved form, which is called *A. paniculata major*. It has, however, with me at least, the drawback of being rather too late in coming into flower, so that in seasons which are rather later than normal or very cold it fails to bloom. Next year I am going to try it in a more sunny position, and I anticipate that it will give more satisfaction there. It is a very handsome plant indeed, and those who wish a flower of such



PENTSTEMON BRIDGESII AT EXETER.

(From a photograph sent by Messrs. R. Veitch and Son.)

character may well grow it. The leaves resemble those of the *Gladiolus*, but are more ornamental. *Carsethorn, Scotland.* S. ARNOTT.

PENTSTEMON BRIDGESII.

THIS beautiful perennial comes from California, and will, no doubt, soon become popular. The accompanying illustration is from a photograph sent by Messrs. Robert Veitch and Son, Exeter, and represents one of the plants growing in their nurseries. As will be seen from the illustration the plant is of an elegant and light habit, and is most valuable for cutting. The plants at Exeter have flowered continuously since the end of July, and are now (the middle of September) still in

bloom. *Pentstemon Bridgesii* grows 2½ feet to 3 feet in height and flowers abundantly, a single plant often producing over thirty large, elongated panicles, each bearing hundreds of bright scarlet flowers of tubular appearance about an inch in length, with a cleft upper and a three-lobed lower lip. A closer inspection reveals a yellow mark inside the tubular corolla, from which protrude one sterile and four fertile stamens, bearing cream-coloured anthers. The green five-lobed calyx is small and, like the thin wiry pedicels, covered by very minute hairs. The main stems are glabrous, and are much longer in the lower part of the panicle. The leaves are opposite lanceolate, sessile, with a glabrous surface and margin entire, slightly undulating. They vary in length, being 5 inches to 6 inches long near the ground, but diminishing to the length of 1 inch or 2 inches towards the top. As the flowers are produced in great abundance *Pentstemon Bridgesii* will form a most desirable acquisition. It has proved perfectly hardy, and its culture is of the easiest. At Exeter it is growing luxuriantly in ordinary loam.

F. W. MEYER.

ROSE GARDEN.

HINTS FOR THE PRESENT SEASON.

THE following useful and seasonable information is taken from the excellent pamphlet "Hints on Planting Roses," issued by the National

Rose Society :

TREATMENT OF THE PLANTS ON THEIR ARRIVAL FROM THE NURSERIES.

When a bundle of Roses is received from a nursery care should be taken in unpacking it, so that in separating the plants none of the shoots or roots be broken off or bruised—any that are found so injured should be cut off. A shallow trench should be dug for their reception in any convenient spot, and the roots at once placed in it at right angles to the line of the trench, keeping as far as possible the different varieties distinct, so that when wanted any plant may be found without disturbing the others. The roots, as well as the lower parts of the stems, should then be well covered with soil. It will be found a good plan to pour some water over the roots, and also to sprinkle some over the shoots, before filling in the trench. If, owing to delay in transit, or any other cause, the bark on the shoots presents a shrivelled appearance, a deeper and wider trench than that required for "healing in" the Roses (as the process is called) should be opened, and the entire plants placed lengthways in the trench. They should receive

a good soaking of water, and be covered completely with soil. After being left for three days the shrivelled appearance will have disappeared, and they can then be planted.

PLANTS ARRIVING WHEN THE GROUND IS FROZEN.

Should the ground be frozen when the plants are delivered, so that "healing them in" is impracticable, they are best left unpacked in their straw covering. The bundle should be placed in a cellar or other unheated place, from which frost is excluded, until a thaw sets in, when they must be at once unpacked and "healed in."

HOW ROSES OUGHT TO BE PLANTED.

Whenever it is possible Roses should be given a bed to themselves in an open spot, away from trees,

and not planted among other flowers. A bed 3 feet wide will hold two rows of plants, and one 4 feet 6 inches wide three rows. The distance between the plants for dwarfs should be about 18 inches, and for standards about 2 feet 6 inches. The beds having been made ready, and the position of the Roses in them marked out, the next thing, and the most important of all, is to see that they are properly planted. Some of the plants should be carefully removed from the trench where they had been "heeled in" and brought to the side of the bed they are intended to occupy. A mat should always be thrown over them to keep their roots from drying by exposure to sun or wind. A hole should then be dug about 1 foot square, and of sufficient depth, in the case of dwarf (or "bush") Roses, to allow the junction of the stock and scion to be about an inch below the surface of the bed when the operation is completed. In the case of standards the hole should be 6 inches deep. A plant should then be taken from beneath the mat, sprinkled with water, and held with the left hand in the centre of the hole, while with the right the roots are spread out horizontally and evenly in it, taking care that the roots cross each other as little as possible. Some of the finest soil available should next be sprinkled over the roots so as just to cover them. Over this light covering place 3 inches more soil, which may then be trodden in and the hole filled up. Tread the soil firmly round the plant when this has been done. Firm planting is very necessary for the future well-being of Roses.

In the case of heavy soils, or where the ground remains for any length of time in too wet a condition for the planting of Roses to be satisfactorily carried out, it is an excellent plan to secure some light gritty soil, such as the clippings obtained

from the sides of roads when the grass edges are being cut. A spadeful of this material may then with advantage be placed both above and beneath the roots instead of the natural soil. Soil of this character may be firmly trodden without caking together, and the grit in it encourages the early formation of roots. When planting Roses singly on lawns or elsewhere the same method should be followed as when inserting them in beds. Where Roses are planted in the spring the shoots should be pruned before planting.

(To be continued.)

NOTABLE GARDENS.

THE GARDEN AT THE MANOR HOUSE, SUTTON-COURTENAY, BERKS.

AT this beautiful place the garden is divided up into three parts—the Long Garden, the Pleasaunce and Wilderness, and the River Garden. The Long Garden, with its high clipped Box hedges and enclosing stone walls, is devoted entirely to masses of Roses, herbaceous borders, Lavender and Rosemary hedges, pergolas of creepers, and carefully kept grass lawns. By proper and careful planting colour is assured throughout the summer.

Walking under an avenue of immense dark Yews, one emerges into the roserie. A Yew

hedge surrounds the carefully mown grass, in which are formally planted standard Rose trees of various kinds. In the centre stands a fine white marble Venetian well-head and iron top. Walking through the roserie one turns into the Pleasaunce, a delightful place in spring as well as in summer. In spring the carpets of Daffodils, Jonquils, Narcissi, and Crocuses are very lovely, as they grow out of the grass and are overhung by the old gnarled Apple trees. In summer, when the spring flowers are over, the flowering shrubs, Roses, Brooms, and Gorse, with the shady trees, make the Pleasaunce a pleasing place indeed. Leaving the Pleasaunce, one crosses the drive to reach the Wilderness, a more open spot, but surrounded by many fine timber trees. Returning through the house, one wends one's way down towards the river Thames, which is less than 200 yards distant. Before the river is reached a word must be said for the River Garden; here no garden beds exist, but everything is a profusion of green grass, damp-loving shrubs, and Roses, which surround an expansive lawn. Here you look down an alley of climbing Roses, which overhang the Water Lily walk; there, down a pleached Lime avenue; and, further on, you look out into the old lush meadows, with the river gleaming beyond. A winding path leads down to the boathouse and river. The Water Lily path, made a few years ago, turned out to be a complete success. A long red-brick path, bordered by grass, extends for 100 yards or so; in the brick path are sunk tanks of water, in



THE LONG GARDEN AT THE MANOR HOUSE, SUTTON-COURTENAY (THE RESIDENCE OF CAPTAIN H. LINDSAY).

which various-coloured miniature Water Lilies live, while overhead is a wooden pergola of climbing Roses, the effect being very pretty. In hot summer weather the effect of the River Garden is a cooling one, with its rank-growing shrubs and grass. At Sutton-Courtenay the river Thames is seen at its best and quietest—broad winding reaches, bordered by meadows and fringed with trees, Willows, Osiers, and Rushes.

CHRYSANTHEMUMS.

NEW CHRYSANTHEMUMS AT THE NATIONAL CHRYSANTHEMUM SHOW AT THE CRYSTAL PALACE.

A WELL-ATTENDED meeting of the floral committee was held at the Crystal Palace, on Wednesday, the 2nd inst., Mr. D. B. Crane in the chair. Owing to the great November show being held on the same date, novelties were numerous, and many certificates were voted to praiseworthy sorts. Those receiving recognition were as follows:

Mrs. A. H. Lee.—A really handsome Japanese reflexed bloom of great breadth. Petals very long and fairly broad, also of good substance, making a monster spreading bloom. Colour rich crimson, with golden reverse. First-class certificate awarded to Mr. N. Molyneux, The Gardens, Rookesbury Park, Wickham, Hants.

G. F. Evans.—An immense incurved flower, having broad petals, slightly pointed, building up a beautiful flower of globular form. Colour chrome-yellow. First-class certificate granted to Mr. W. J. Godfrey, Exmouth, Devon.

Emblème Poiterine.—A massive-looking incurved flower, with petals of medium width, making an exhibition bloom of deep build. Colour, a beautiful rich yellow. Petals slightly hirsute. First-class certificate also to Mr. Godfrey.

Buttercup.—This is an incurved bloom of the largest size and one of great promise. The flower is of wonderfully even form, having broad petals of splendid substance neatly incurved, and of deep build. Colour, buttercup-yellow, as the name implies. First-class certificate to Mr. Godfrey.

W. A. Hetherington.—A deeply built Japanese flower of beautiful form and solid and massive character. Petals long and fairly broad. Colour, rosy mauve with white centre. First-class certificate awarded to Mr. Godfrey.

Mrs. A. T. Miller.—This is a pure white seedling from the popular Japanese exhibition variety Miss Olive Miller, and with such parentage should be highly valued. Broad petals pleasingly incurving and curling, make a large flower of good substance. First-class certificate awarded to Mr. G. Mileham, The Gardens, Emllyn, Leathehead.

Miss Elsie Miller.—Another charming seedling from Miss Olive Miller, developing blooms of ideal Japanese form. This is a very large and refined flower, having very long petals of medium width, evenly reflexing and drooping, and great depth; colour, mauve-pink on white ground. First-class certificate also to Mr. Mileham.

Miss E. Holding.—This is a pretty silvery rose incurved bloom, with a much deeper shade of rose on the inside of the broad petals, of good form and good substance. First-class certificate to Mr. W. Seward, Hanwell.

Margaret Brown.—Another pleasing silvery rose incurved bloom, with broad petals of good shape. Distinctly promising. First-class certificate awarded to Mr. Seward.

Miss Yackey Bird.—This is a large single-flowered sort of good form and pleasing character. Fairly broad petals of good length, and arranged in neat order round a well-formed yellow disc. Colour, creamy white. First-class certificate awarded to Mr. H. Redder, Manor House Gardens, West Wickham.

W. Gooding.—A beautiful exhibition Japanese bloom of deep build, having broad petals, prettily recurving. Colour, mauve-pink, with silvery reverse.

First-class certificate to Mr. T. Bullimore, The Gardens, Canon's Park, Edgware.

There were many promising sorts that were ignored, and others that the committee wished to see again. Of the latter the following is a brief description:

Mrs. A. Arnold.—A grand reflexed Japanese of even form, with broad petals. Colour, rich crimson, with bright golden-yellow reverse. A very large flower.

Mrs. Frank Penn.—A glorious rich yellow reflexed Japanese bloom, with erect, fairly broad petals when finished.

G. W. Mathew.—This is a pale, bronzy yellow incurved flower, with long petals of medium width. Promising.

Maurice Sargent.—Large, solidly-built pearly white flower, with rosy violet inside colouring to the broad petals of good substance. This is a promising incurved bloom of globular form.

Mrs. Chas. Davis.—Without a doubt the richest yellow Japanese flower in cultivation. It is the result of a cross between Duchess of Sutherland and J. R. Upton, and is a bloom of grand quality. Broad, curling petals of great length; colour rich orange-yellow.

Progress.—A large-flowered single of good form, though with rather too many rows of petals. Its colour is its chief attraction, and this may be described as a shade of salmon terra-cotta.

THE KITCHEN GARDEN.

PROTECTING VEGETABLES AND SALADS.

MUCH has to be done in the kitchen garden at this time in the way of affording protection to winter vegetable crops. Many of these are only half hardy, and even the hardiest require the gardener's attention in some minor details if a regular supply of fresh vegetables is to be maintained throughout the winter and early spring. A denuded kitchen garden in the early part of the year is sure to result after a hard winter if protection is not given in due time, and especially is this the case after a mild autumn such as we are now passing through, because the various crops will be soft and sappy, therefore more susceptible to injury through having made rampant growth.

The expense of the necessary material is a small matter in most instances, and practically nothing in country gardens if the gardener is resourceful.

Bracken is frequently to be had for the cutting, and if cut now before it becomes quite brown it will last for a long time. Rough stable litter used when clean and fresh is suitable for many purposes. Branches of Yew or other evergreens answer for certain young growing crops, and other materials I have used are Reeds and Rushes cut from the sides of watercourses and the dry stalks of the Asparagus.

I will deal briefly with each of the vegetables and salads that most demand our attention.

CELERY.

This valuable salad plant is much damaged by frost, and as it is expected to last during the winter adequate protection should be afforded in time. One of the greatest safeguards is firmly to fix the soil that is banked round the stems to prevent the frost entering at the top. I advise that no covering be done until the plants have had some 5° or 6° of frost upon them, then shake loosely over them about 3 inches of dry litter, which should remain until the frost breaks, when it may be carefully drawn into the alleys for future use.

BROCCOLI.

The old plan of heeling these over with their heads facing north has much to recommend it, as it gives a check to growth, thus hardening and preparing them for severe weather. As with Celery, it is best to allow them to freeze a little, then shake some dry litter over their heads during the continuance of the frost.

CAULIFLOWERS.

Where a succession is maintained from early autumn until Christmas the later batches should now be heeled over as advised for Broccoli, with the exception that the heads should face the south. In gardens having abundance of house or pit room at disposal it is better entirely to lift the plants, taking care to retain a ball of soil if possible. They may be transplanted into any ordinary garden soil, and will continue to yield nice medium-sized heads for a long time.

COLEWORTS.

These rank among the most delicious of winter green crops, and, although nearly hardy, are better for being protected with a thin covering of dry litter. This is not a large order, as Coleworts are generally planted closely together.

CABBAGE.

The plants set out for spring cutting have made rampant growth this autumn, owing to the prevalence of mild weather, and to ensure their passing safely through the winter some soil should be drawn now to the stems for protection.

SPINACH.

This esculent is always appreciated, especially in early spring, when green vegetables are scarce. The young plants will now be strong and provided with abundant leafage. This should not be picked too closely at this time; but before severe frosts set in the lower leaves may be gathered for use and a little soil drawn to the stems. During severe spells of frost some Bracken or dry tree leaves should be worked among the plants with the hand and allowed to remain until danger of severe frosts is past.

GLOBE ARTICHOKE.

Although this is a summer vegetable, the plants require adequate protection from this time until the spring. Few vegetables are more tender than this. Bracken or other litter should be carefully worked among and about the crowns, thus forming a mound round each clump.

PARSLEY.

The scarcity of this herb in many gardens during winter may safely be attributed to lack of protection. Assuming that seed was sown in July, especially for providing strong plants for winter picking, a frame should now be placed over them and all fully-developed leaves cut off; this will promote the formation of new roots and top growth for winter use. Some gardeners sow or transplant into raised frames in July or August, and where convenience exists the system is a good one, as they are more under control. If a frame cannot be devoted to Parsley, some strong plants may be carefully lifted, taking care not to damage the fleshy tap-roots, and planted in boxes for placing in the greenhouse.

LETTUCE AND ENDIVE.

Those sown for autumn and winter use should be lifted when quite dry and planted in rough frames or pits. Failing these, a piece of ground not too rich, in a sheltered part of the garden, may be prepared for them, and they may be covered with old lights, or with dry litter or evergreen branches. These salad plants must be fully grown, or nearly so, at lifting time. H. T. M.

CORRESPONDENCE.

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

THE FLAME FLOWER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—To many of your readers "A. D.'s" note on page 271 will be strange reading, because it has become almost a matter of history that, though here and there are spots which are made to suit the Flame Flower, one must go to Scotland to find the congenial home and successful culture of this favourite Tropæolum. There is no doubt that it is a glorious flower when it will flourish, but many

have failed with it. Three years since I obtained tubers and planted them in prepared soil on a north border, where it could climb an erection of wire netting. I was the first year able to congratulate myself on the success of the venture, for it made nice growth, and gave a bright touch of colour to that part of the garden. The next year the growth was feeble, and this, instead of progressing, dwindled away. This season at about midsummer growth appeared again close to where the original plant grew, and has since gone up the wire some 2 feet. I am puzzled as to the source of this renewed growth after so many months of slumber. Though almost a weed in Scotland, there are few places where it is seen thriving in the milder counties of England. If Dean Hole despaired by reason of his want of success and made such facts known, there would naturally be many deterred from attempting its culture, but although advertisers have of late years brought this bright flower prominently before the gardening public, the memory of Dean Hole's failure would not be forgotten perhaps. It is a misfortune that such a lovely flower has such exacting growth. Were it possible to plant in sunny spots instead of shady ones, how much more effective floral pictures might be made!

Wills. W. S.

POTATO AND WHEAT CROPS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In Mr. Molyneux's estimate (page 295) of the returns for an acre of Wheat, he forgets to reckon the value of the straw. I agree with his figures otherwise. My estimate of £12 was in any case meant to represent a maximum, the utmost the Wheat grower could hope for. A. D. HALL.

Rothamsted Experimental Station, Harpenden.

POTATO THE FACTOR.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am pleased to see your correspondent "H. E. R." writing so favourably about the merits of the above Potato, and I can quite bear out all he says regarding it. I first grew this Potato several seasons ago, and was so pleased with it that I recommended it to others, all of whom share my opinion. It cannot be called a boomed variety, and its price is not prohibitive, but it is certainly one of the best main crop Potatoes on the market at the present time, and had it been sent forth with a flourish of trumpets like many others I have no doubt it would be much more valuable. In addition to being a heavy cropper and a splendid cooker, I have found The Factor to be an excellent disease resister, and even in 1903, when most varieties succumbed, this Potato with me grew quite free from the trouble. I would remind any who propose giving The Factor a trial that it is a strong grower and should be given plenty of room. I allow 3 feet between the rows, and find this is none too much if crowding is to be avoided.

G. H. H.

TWO GOOD SUMMER AND AUTUMN SHRUBS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The Wig Tree or Cloud Bush has seldom been better than during the past summer. When a bush of this some 30 yards in circumference, well flowered, is seen, it is a beautiful sight. I saw a tree of this size during the past season. The autumn effect produced by this shrub is to me really finer than when in flower, especially so if it happens to be *Rhus Cotinus atropurpurea*, or, better still, *R. cotinoides*. The latter is most attractive just now. It is the best for autumn effect. *R. C. atropurpurea* has a great deal of bronze and purple about it, and in certain positions is a most telling plant now; but it should be kept away from such shrubs as Laurels, Yews, and heavy shrubs of this kind, while the effect is improved by their presence in the case of *R. cotinoides*. There are few plants so suitable for an isolated specimen as either of these beautiful shrubs. Moreover, they are hardy and need very little attention, unless it be when there is a heavy fall of snow. They

are then liable to break, as the wood is somewhat brittle. There is always a certain amount of dead wood to be cut out each spring, for they lose some of their young growth each year, and unless this is removed the shrub looks untidy all the summer. There is a variety grown in this neighbourhood called *R. coccinea*, the flowers are said to be redder. This is also a fine autumn shrub, and should be planted with the others. One word about the method of propagating *R. cotinoides*. This is generally grafted or budded on *R. Cotinus*, and the result is that frequently the common stock gives a great deal of trouble, so much so in some instances that it has killed the scion outright in a few years. Could not this beautiful shrub be layered instead of worked on the common and more vigorous stock?

Cirencester.

T. A.

LONICERA HILDEBRANDTI.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph of my plant of *Lonicera Hildebrandti* to show the progress it has



LONICERA HILDEBRANDTI IN A TORQUAY GARDEN.

made in two years and ten months since it was planted out of a 4-inch pot. It has produced fifteen bunches of flowers this year. It will probably bloom on all the laterals next year, and will be very ornamental. The scattered trusses at the top opened first, one or two at a time, then those on older wood at the bottom.

Blythswood, Torquay.

P.

SHRUBBERIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In a recent issue of THE GARDEN Mr. Hobday says that "every planter ought to make himself acquainted with the average height and dimensions that the trees will have when they reach full development." This is excellent advice, but your correspondent might go further and include all kinds of shrubs, and especially those that delight with their blossoms. The fact is planting is too frequently done in a haphazard fashion, the object being to furnish the ground quickly. Cheap coarse-growing things, such as Chestnuts, Laurels, &c., are associated with comparatively slow-growing, choice-flowering shrubs, which in time either die out or come into a condition that renders them useless from an ornamental

point of view. There is no reason why the shrubbery should not be as attractive and full of interest as the conservatory. Among those things used for the decoration of glass houses can we find anything finer than the Pearl Bush (*Exochorda*), *Berberis Darwini*, the *Weigelas*, *Philadelphus*, and other things too numerous to mention? *Hydrangea paniculata* is as fine as its relative *hortensis*, and does not need half as much care. Chinese and Ghent Azaleas are as beautiful and effective as their relatives which demand the shelter of a glass house, and there is nothing more pleasing than a well-developed bush of *Laurustinus* or a good plant of *Spiræa arifolia* when in full bloom. A few loads of peat or good loam would make all the difference in the welfare of some things which the natural soil is unsuitable for. It is not only the preparation of the rooting medium, but after-care that is needed. In a general way no systematic thinning or pruning is practised, the consequence being that the weaker-growing things are smothered or deprived of their decorative worth. We know what is likely to happen if such things as *Spiræa arifolia*, *Weigelas*, *Kalmia*

latifolia, and *Berberis stenophylla* are intimately associated and no restriction imposed on any of them. It will be a case of the survival of the fittest—the weaker members must go to the wall. The shrubbery can be made a delightful place, but only if some of the care lavished on tender and indoor things generally is bestowed on it.

J. CORNHILL.

MALMAISON CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having read the very interesting article on Malmaison Carnation culture, I would like to ask the writer if the article was intended for the amateur or professional gardener? In the first place, the writer says the plants are layered on August 21, and on September 27 severed from the old plants when nicely rooted. Then I find your correspondent waits until October 10 before the layers are potted up, and until February before they are transferred into flowering pots. Now, I would like to ask Mr. West what advantage he gains in delaying potting? In the first instance, after severing the layers from the old plants, when he might be taking advantage of the longer days in September in getting the plants well started before

winter. Having had considerable experience in market culture of Malmaisons, I find the usual practice is to layer in July, sever the layers, and pot them up about the third week in August into 3-inch pots, then about the third week in September they are ready for another shift into 6-inch pots. In this way the plants are well established before the winter. Why are the plants left until February before being potted into 6-inch pots? I find after flowering another small shift is given into 8-inch and 9-inch pots; then again in February the following year they receive their final potting into 10-inch and 12-inch pots. I would like to ask the writer what advantage is gained by a second shift? The usual practice amongst Carnation growers is to give them one shift after flowering into 8-inch and 9-inch pots, according to the strength of the plants, then when nicely rooted to start feeding. By this practice we get our plants in bloom in April and May, which are the two months that I find Malmaisons realise the best price. I should like to know the average number of blooms the two year old plants carry, measuring 6 inches and 7 inches across. W. G.

Sandbeck Gardens, Rotherham.

BENTHAMIA FRAGIFERA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Will seedling plants of this shrub give fruit, or must they be grafted? Ten years ago I raised some plants from seed received from Cornwall. They have grown luxuriantly, but have hitherto shown no sign of fruiting. So far the plants have not suffered from wintry weather, although they are growing in the open and without any protection. E. M.

THE CLIMATE OF BRITISH COLUMBIA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent writing from Sweden in the issue of THE GARDEN for October 8 (page 247), seems to be under the impression, like a great many more people, that British Columbia has a very severe climate. It is a large province, and the climate is very variable. In the north and north-east the climatic conditions are very severe, but the south-western portion is mild, and the nearer one gets to the coast the milder is the climate. On the lower mainland and on Vancouver Island the climate resembles that of the south of England, only the summers are drier, with a lot of rain in winter—from 50 inches to 70 inches on the lower mainland, and here in Victoria about 35 inches usually falls. The maximum temperature ranges from 70° to 90°. The nights are always cool, too cool for Grapes, Peaches, Tomatoes, &c., that are grown outside. The thermometer seldom runs down to zero; last winter the coldest weather we had was on the last day of February and March 1, when 14° of frost were registered. That small amount did a great deal of harm; nearly all of my Peach buds were killed on the young budded stocks. At the present time the soil is so dry that it is impossible to dig up trees or plough land. We have had no rain to speak of for about five months. I was at Vancouver (seventy miles north from here) about a week ago, and they were digging trees with ease, the land being quite moist. They get some summer and early autumn rain there.

In my note on the Loganberry there was a typographical error; it should have been "tips," not "slips." The tips are buried a few inches in the soil in September and October, and every tip will make a strong plant (not separated as slips would be). Loganberries are doing well in the interior of British Columbia, where the thermometer falls below zero. G. A. KNIGHT.

Mount Tolmie Nursery, Victoria, B. C.

P.S.—We had fair crops of fruit of all kinds this season, and Apples in some places very heavy. Plums were worst; they were attacked by aphids, and I am sorry to say that rot or fungus has attacked them also. Large quantities decay on the trees, and even after they are picked.

GARDENING OF THE WEEK.

FLOWER GARDEN.

ANEMONES.

WHERE the soil is light and moderately dry these tubers may now be planted; but with a heavy soil and in cold localities it is wiser to defer the planting until the end of February or early March. The soil should be rich and deep. Allow plenty of room, at least 9 inches between the plants and a foot from row to row, planting the tubers about 4 inches deep.

There are many beautiful varieties to choose from. If cut flowers are the chief consideration, one would largely plant the giant French Poppy Anemones, which produce enormous flowers and have a great range of colour. The St. Bridg Anemones are also very showy and free flowering, and are chiefly double or semi-double. The ordinary single and double-flowered varieties can be obtained mixed or in distinct colours—scarlet or blue. These are more used for beds and planting in clumps. There are many named kinds, and several of the early-flowering species are well worth a place. The herbaceous Anemones may now be increased by division. The old *A. japonica* is still one of the best, as also is its variety *alba*, more commonly known as *Honorine Jonbert*. The variety *Whirlwind*, illustrated in THE GARDEN on the 29th ult., is very beautiful and desirable, and *A. japonica rosea* freely produces flowers of a pleasing rose colour.

RANUNCULUS.

The remarks *re* planting under Anemones also apply to the Ranunculus, except that they require more moisture. During severe weather both plants should receive some protection.

LILY OF THE VALLEY.

If it is intended to lift the crowns and make new beds, this work may now be proceeded with. The details were given in "Gardening of the Week" for January 30 last.

BORDER CHRYSANTHEMUMS.

It is many years since the early Chrysanthemums were in such great beauty as they have been this autumn. Some surplus plants of the large-flowered kinds, which were planted at the foot of an old wall and in vacant spaces in the borders, are still in full bloom. These were not disbudded, and all the attention they received was an occasional watering during the summer and tying when necessary. Should the winter be mild they will probably furnish some sturdy cuttings. The varieties which have done best are *Ladyemith*, *Mrs. Geo. Mileham*, and *Viviani Morel* and all its sports. The October varieties proper are now over; the old flower stalks should be cleared away and the plants may be lightly mulched as a protection during the winter. It is a good plan to take a few cuttings of each desirable variety and insert them, fairly close together, in pots and place under a handlight in a cool frame, where they will quickly root. The selection of varieties is largely a matter of individual taste and requirements. There are many new varieties, but few are more useful than *Mme. C. Desgrange*, *George Wermig*, *Roi des Procees*, *Market Pink*, and *October Yellow*.

SEEDLING HERBACEOUS PLANTS.

Many hardy plants raised from seed in the spring are now fit for planting in their permanent quarters. The perennial *Gaillardias* will flower well next June. In the rush of newer herbaceous plants these showy subjects seem to suffer undeserved neglect. They should be planted near the front of the border, and any surplus plants may be planted in the reserve garden to furnish cut flowers. The *Eastern Poppy* (*Papaver orientale*) and *P. bracteatum* should go a little further back. Once planted these are impatient of root disturbance. If cut just as the flower bud shows a tinge of colour between the sepals of the bursting calyx, they will travel long distances and open well in water.

Flowers so treated last longer than when cut fully expanded.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

FRUIT GARDEN.

WINTER CUCUMBERS.

THESE have made a healthier growth than usual, chiefly owing to the outside atmosphere being so favourable for providing ventilation. The plants have been supplying fruits freely and are still showing more, but do not overcrop them, especially where a good supply is expected from the same plants during December and January, when continuous firing is necessary. The plants should be encouraged by a light top-dressing of rich fibrous loam, some horse manure, with a sprinkling of bone-meal added as soon as the roots appear on the surface through the previous dressing, care being taken that the soil is well warmed through before using. Water must be carefully used at this season, and always at the same temperature as the house. The plants should also have occasional sprinklings of Thompson's Manure, and watered with weak liquid manure, care being taken, however, not to overfeed them, as a sturdy growth must be encouraged. Remove all male flowers and tendrils as soon as they appear, and stop the shoots first or second leaf beyond the fruit, according to space. Pay attention to regulating the growths, and allow plenty of space for the principal foliage to develop. A night temperature of 68°, more or less, according to the outside atmosphere, and 75° to 80° by day will be suitable, with a chink of ventilation on all favourable occasions. Later sown plants should be allowed to make a freer growth before pinching, and be cropped lightly. Very little syringing will be necessary, with the exception of damping the beds, paths, &c. A light dewing over of the plants occasionally on bright days early in the afternoon will do good, and help to keep down red spider.

POT STRAWBERRIES.

These will soon require to be placed in their winter quarters in pits or frames, where they can be protected from heavy rains and severe frosts. They should still have all the air possible by having the lights removed altogether, except when the above conditions prevail. Where pits or frames are not at disposal, they may be plunged up to the rims in ashes outside to protect the pots from breaking, and in very severe weather a light covering of Bracken may be thrown over them. I do not advise laying the pots on their sides, as I think they become too dry, and do not do so well afterwards. Where early fruit is required forcing must soon begin. A Strawberry house is the best place, as the plants must be near the glass, forced slowly, and the house free from draughts. An early Peach house just started, where the night temperature does not exceed 48°, is also a good place. The old-fashioned way of plunging the plants in leaves in a light airy pit, where the bottom-heat does not exceed 65°, always gives good results with ordinary care and attention. No syringing is necessary in this case, and very little water until the flower trusses appear, as the fermenting leaves will provide sufficient moisture.

WINTER TOMATOES.

These will now be carrying good crops of fruit, but owing to the absence of sun they require a much longer time to ripen. Maintain a warm, dry atmosphere, with a night temperature of 60° in mild weather, and a crack of ventilation on all favourable occasions. Fertilise the flowers daily, keep all side growths removed. Carefully water the plants, and top-dress them before they become exhausted with good fibrous loam and some horse manure, with an occasional sprinkling of some artificial manure.

FRUIT ROOM.

Examine and remove all decaying fruits, and spread out remaining varieties of Apples which are too crowded. The less ripe Pears are handled the better. Allow a free circulation of air to pass through the ventilators to carry off excessive moisture.

Impney Gardens, Droitwich.

F. JORDAN.

KITCHEN GARDEN.

BRUSSELS SPROUTS.

Owing to the exceptionally mild autumn these have made extra strong growth. The decaying lower leaves should be cleared to allow plenty of air about the plants. This vegetable is generally planted too thickly, the result being a great loss of leaves and poor quality. It will pay to pull out some of the plants if ample space has not been allowed. The earliest plantings are fit for use, but will improve greatly after a touch of frost. If the garden is an exposed one a good moulding up should be given to prevent damage by wind.

FORCING ASPARAGUS.

Roots that have been specially prepared for this purpose will now start readily provided the tops ripened off early; but if they have not ripened a supply of roots will have to be got from an earlier locality. They may either be grown in a warm pit or frame or in the Mushroom house; if in the latter a temperature of about 60° will do well. No great depth of soil is needed—6 inches is sufficient. Spread the roots on this, and cover to a depth of 5 inches with light soil. Give a sprinkling of tepid water to settle the soil. Keep the house or pit close till heads appear. Failing a heated pit or Mushroom house this vegetable may be successfully forced on hotbeds, although this

or decaying leaves, and give plenty of air. Lift sufficient Rhubarb to meet all requirements, and cover with leaves till required for placiog in heat.

Hopetoun House Gardens, THOMAS HAY.
South Queensferry, N.B.

THE FRUIT GARDEN.

CORDON GOOSEBERRY TREES.

DURING the past few years the Gooseberry has received more attention from cultivators. The best flavoured kinds are now better known, though these are not the most showy fruits. Some time ago there was a splendid exhibit of Gooseberries in the new hall of the Royal Horticultural Society, nearly a hundred varieties being staged, and among them were the best dessert varieties. Where this fruit is not a success I would say try cordons; often a north or east wall can be made one of the most profitable in the garden when covered with these trees. The culture is quite simple after the trees have become established. It is necessary to spur back foreright shoots, extend the main growths, and thin out when required. This method of culture has other advantages over the ordinary bush trees, and especially, where birds are troublesome. Such

garden. I would refer to the value of the trees when grown in palmate form. This is very suitable for some sorts, especially those of drooping habit, and all do not do well as cordons. Some cordons have two braoches, others four; for walls I prefer the latter, that is, two shoots on each side, or say five, one central one and two each side. This is commonly called gridiron training. Of course, where no expense is spared it is an easy matter to cover a wall with single cordons. Single cordons may also be made most useful if trained to stakes in lines. I do not admire this mode of training other than to form the trees at the start; still it is advantageous for small gardens. I do not advise standard Gooseberries; although ornamental, many kinds do not succeed when grown in this manner.

As to culture, there must be a good root-run to get the best results, deep digging, and ample food in the way of decayed manure. I advise early planting, from mid-October to late in November. The earlier the land is got ready the better. Mere surface-digging will not suffice, as the trees will be in the same spot many years, so that they need deep culture. For flavour the small-berried kinds are the best. At the same time, the large ones are more useful for cooking, as these may be gathered so much earlier. Telegraph and Philip the First (greens), Beauty and Bobby (reds), Freedom, King of Trumps, and Lancer (whites), and Keepsake and Leveller (yellows) are good large kinds. The new May Duke is a valuable early berry, and Whinham's Industry is a valuable red. For flavour Green Hedgehog, Green Gage, Crown Bob, Keen's Seedling, Warrington, Shiner, Golden Drop, Keepsake, Yellow Rough, or Sulphur and Golden Lion are the best. Among the new kinds recently sent out having splendid flavour are Golden Gem, Laogley Beauty, and Langley Gage. When grown on walls these fine-flavoured fruits are delicious.

G. WYTHES.



THE NEW GRAPE MELTON CONSTABLE.

GRAPE MELTON CONSTABLE.

THIS new black Grape, of which we give an illustration, has been exhibited a good deal recently by Messrs. Ambrose and Son, Cheshunt, who hold the stock of it. It is the result of a cross between Gros Colmar and Lady Hastings, and was raised by Mr. Shingler, gardener to Lord Hastings, Melton Constable. It is of good flavour, and the berries are large and handsome. That it travels well and keeps well Mr. Ambrose has demonstrated at numerous exhibitions within the last month or two. This new Grape is a late variety, and is said not

to be at its best until Christmas or even after. Several medals and certificates have been awarded to this Grape. The three bunches shown in the accompanying illustration weighed 15lb.

BULLACE THE LANGLEY.

I SHOULD like to draw attention to the remarks of "A. D." in THE GARDEN of the 5th inst., page 302, in which he takes Messrs. Veitch to task for giving an inappropriate name to this fine fruit. The true facts are as follows: It was shown for the first time before the Royal Horticultural Society on Tuesday, October 7, 1902, and reported in the Society's Journal, 1903, Vol. XXVII., pt. 4, page cxi., as follows: "Messrs. James Veitch and Sons sent Damson The Langley, raised by crossing The Farleigh Damson with Black Orleans Plum, &c." The Royal Horticultural Society's fruit committee decided to test its cooking qualities at Chiswick before giving it an award, and at the following meeting, Mr. S. T. Wright having reported as to its cooking qualities, it received an award of merit under the name of Langley Bullace. This transaction is reported in the above-named Journal, page ccxv., as follows: "A. M. to Bullace 'Langley Bullace' (votes unanimous) from Messrs. J. Veitch, from Farleigh Prolific Damson x Orleans Plum."

entails a great deal more labour. To have a lasting bed mix fresh stable litter and leaves in sufficient quantity to form a bed 4 feet in depth, and place a one or two-light frame on the top. Trample and beat the fermenting materials when building the bed, and leave it untouched for a few days until the heat seems to be steady at about 80°. Place a layer of soil over the bed, and plant as recommended for those grown in pits. The frame should remain close and covered with mats until growth begins. When lifting Asparagus roots for forcing the work should be carefully performed, the clumps should be lifted with as little injury to the roots as possible. A portion of a bed should be lifted, and not single roots all over the ground. The land may then be dug, manured, and prepared for replanting.

GENERAL FORCING.

Another supply of Sea Kale crowns should also be now got in. These will start more quickly than those put in three weeks ago. Continue the weekly sowings of Mustard and Cress in boxes. French Beans in bloom will require careful attention. Syringing should be discontinued until the fruits are set. Tie and train winter Tomatoes and Cucumbers as required, and give air on fine days. Inspect Lettuce in frames, remove all decayed

trees are easily netted, and the fruits may be kept much longer. I have often seen bare places on a north wall that would have given a good return if covered with cordon Gooseberries. There are other methods of culture besides the cordon. We grow the plants trained to stout wires, the latter supported by Oak posts, and the whole covered with wire netting. The trees are 6 feet apart between the rows; grown in this way they give a wonderful return. For years our Gooseberry crop on bush trees, in spite of fish netting and every attention, was not reliable, as it was almost impossible to keep finches and other birds from the buds. They do more harm early in the year than when the fruits are ripe, and although at the start protection as described may be rather expensive, the outlay is soon recovered by the splendid crops secured. An expensive protector need not be employed. In country districts I have seen excellent results from very cheap methods. In the gardens at Knoyle House, near Salisbury, I noticed a very efficient fruit protector made by using Larch poles, the ends in the earth being creosoted. They were about 7 feet out of the ground, and covered with netting.

The Gooseberry may also be grown as an espalier. I have seen them grown thus, and made like a hedge to divide the flower from the kitchen

&c., and in the *Gardeners' Chronicle*, November 8, 1902, page 344: "Mr. S. T. Wright reported that the large, immense-cropping Damson shown at the previous meeting by Messrs. Veitch had been cooked and found of first-rate quality. The variety, to be known as the 'Langley Bullace,' &c., was granted an award of merit."

In THE GARDEN, November 22, 1902, page 357, "A. D." has a note headed "A Valuable Bullace," in which he says: "The fruits of this very fine Bullace (although called a Damson, which it hardly is) when shown at the Drill Hall by Messrs. James Veitch and Sons last month, now named Langley Bullace, having been cooked and favourably reported on by Mr. S. T. Wright, obtained an award of merit, &c."

Now, in the issue of THE GARDEN for the 5th inst., page 302, "A. D." writes, saying: "To describe it as a Bullace is absurd. It is really a Plum, as its parentage, Farleigh Damson and Black Orleans Plum, indicates, &c." I am afraid "A. D." contradicts himself, and the fruit committee is entirely responsible for the name. C.

ORCHIDS.

CÆLOGYNE CRISTATA.

PLANTS that bloom during the winter months have a particular value. This is one of the merits of *Cælogyne cristata*. Few Orchids are more lovely than a well-flowered plant of this. Another recommendation is the simple culture it needs. It can be grown with other plants or with fruit trees during the summer months. It thrives equally well in large or small pots and pans. We grow them in pans. Our method is to grow them in a warm house with other plants during spring and early summer, and in autumn they are given an airy place in a fruit house. Here the bulbs ripen and the foliage matures. At the close of the year some of the plants are removed to a warm stove, which soon induces the flower-spikes to push up, and by the first week in February the blossoms are open. The specimen, of which I send a photograph, had about thirty racemes, some having five blooms each. The plants increase rapidly, the bulbs soon becoming crowded. Our method is to divide a portion every year; thus they only remain three years undisturbed. In this way we have always some well-established plants. Remove the old and crowded bulbs at potting time, i.e., when flowering is over and before growth commences. We grow them in fibrous peat, two parts, and one part of turfy loam and sand, with some charcoal mixed in, providing ample drainage. This permits our giving abundance of water during their growth. By careful management they may be had in flower some time. In a dry, warm air the blooms last a long time and do not become spotted, which they are apt to do if allowed to remain in a moist air.

Forde Abbey.

J. CROOK.

WORK FOR THE WEEK.

TREATMENT OF ORCHIDS DURING FOGS.

GROWERS who have the good fortune to live in the country know very little of what town growers have to experience from the dense sulphuric fogs, which play such sad havoc with most flowers and buds. In many parts fogs are very prevalent, but they do not leave the glass of our houses black, neither are all our flowers ruined if the necessary precautions are taken. It is advisable to get the houses as dry as possible as soon as the fog is visible. Shut all ventilators, and reduce the amount of fire-heat that is required when the ventilators are open. So long as the fog lasts do not water any plants or damp down the houses. It will be needful to have the outside of the houses washed near towns as soon as possible after the fog has lifted if the sooty sediment is deposited. Although this must seem rather heart-breaking work, it is absolutely essential for the well-being of the inmates, which under the best of conditions feel more or less the absence of strong light and sunshine during winter.

VANDAS AND AERIDES.

Very little water will be required by these for the next four months. If they are kept well damped between the pots when the atmospheric conditions permit sufficient humidity will be produced to maintain them. I do not believe in allowing the surface moss to become dry enough to kill it. We find by judicious damping during the winter months that the surface moss takes up sufficient moisture to preserve it. When we get very severe weather, entailing much fire-heat, and the atmospheric condition does not allow of much damping, it may be necessary to water enough to moisten the surface moss. They are best in a humid position in the stove house where there is sufficient buoyancy to maintain a sweet atmosphere. The popular *Vanda cærulea* should be placed in a cooler temperature such as the coolest part of the intermediate house, otherwise the same treatment should be given.

CÆLOGYNE CRISTATA AND ITS VARIETIES.

The growing season being now over, the supply of water should be considerably reduced, only giving enough to prevent shrivelling of the pseudo-bulbs. When the flowers begin to develop it will be necessary again to increase the water, but at that season they should not be watered till they become fairly dry. Place them in a light position in the intermediate house.

ANGULOAS.

This interesting section will by now have fully matured their new bulbs, and will be benefited by a thorough rest. It is essential during the resting season that a very light place be found for them in such a temperature as the cool intermediate house affords. Although the plants themselves require to be kept very dry, it is helpful to keep the surroundings damp from time to time. That will be ample to maintain them in a sound state if the new bulbs have been well finished.

LYCASTE SKINNERI.

The flower-buds on this most popular Orchid are now in evidence, and it will be to their advantage if they are well exposed to the light in the cool intermediate house. As the flowers approach development the surroundings must be kept somewhat dry to prevent the flowers getting spotted through damp. Any plants that have not made good growth should have the flower-buds removed as soon as they appear. If they are potted in good retentive compost water will be only necessary when they have become dry.

W. P. BOUND.

Gasston Park Gardens, Reigate.

MISCELLANEOUS.

A NEW TUBER IN FRANCE.

THE following interesting information is taken from the Journal of the Board of Agriculture for October: A species of tuber of the Potato family, not previously cultivated in Europe, has recently been introduced into France, where its experimental cultivation appears to have been attended with considerable success. The tuber in question, known as *Solanum Commersonii*, was obtained from Uruguay by M. Heckel, Director of the Colonial Institute at Marseilles, and specimens were distributed by him to various cultivators, one of whom, M. Labergerie, has communicated to the Société Nationale d'Agriculture de France an interesting account of the experiments carried out by him since 1901.

The specimens received by M. Labergerie included two distinct types of *Solanum Commersonii*, differing from one another in a marked degree. One of these, which may be taken to be the original type, produced suckers, and the tubers were deeply buried and distributed in all directions. The second, a violet-skinned variety, produced tubers clustered round the foot of the mother plant, and partly above ground. The tubers, moreover, of the first were found to possess a bitter flavour, while the second had, on the

contrary, a sweet taste. The origin of this variety is unknown, but it was suggested to the society by M. Schribaux that it was not merely a spontaneous variation, but the result of a natural cross between the *Solanum Commersonii* and the *Solanum tuberosum*, or ordinary Potato. The correctness of this suggestion cannot be confirmed, as it has not been found possible to produce such a cross artificially.

With regard to the original type, it is stated that when once established in the soil the plant perpetuates itself by its underground roots, and subsequent planting is unnecessary. Its flowers, which are very abundant and of a pale violet colour with a shade of yellow, emit an odour similar to Jasmine. The tubers are white with a yellowish skin, and have at first a markedly bitter flavour, but they were found to improve with cultivation, and in two years the proportion of good and eatable tubers increased by 10 to 20 per cent. So far, however, as these experiments have gone they have, in the majority of cases, been found too bitter for human consumption, but their improvement, it is said, promised to be very rapid. They are willingly consumed by animals, especially when cooked, and on the wet and marshy soils, which appear well adapted for their cultivation, they might form a valuable food for stock. A yield of about 6½ tons per acre was obtained in 1902, and about 4½ tons in 1903, on a fertile soil, but without any manuring or cultivation beyond a single hoeing when the shoots first appeared. The subsequent very abundant growth was sufficient to choke all weeds.

The tubers are rich in starch, and may prove valuable as an industrial plant. A successful attempt was made experimentally to employ the flowers for the production of perfume, and it was also found that the fruit, though not abundant, contained the perfume in a more concentrated form.

Besides the above original type, three variations have been observed, one of which promises to be of importance. Among the plants distributed in the first instance it was noticed that one was characterised by stronger stalks, and at the foot of the stalk two tubers of a blackish violet colour formed, which were very dissimilar to the tubers described above. These were found to be very sweet and fine flavoured, with a hardly perceptible bitterness. The tubers produced by this plant were carefully preserved and planted separately. In this variety the plant forms a central stem, with numerous branches and exuberant vegetation. Flowers were not abundant, and on some plants they were entirely wanting; they had no odour, and seemed to be sterile. The tubers form round the central stem. They vary in colour: when young they are white, gradually becoming rose-coloured, and finally violet. The flesh is usually white or yellow; the flavour is said to be perfect, in their young state they are sweeter than the best Potatoes with a slightly aromatic flavour; when fully grown they preserve their sweetness with a tinge of bitterness, but the aromatic taste is more pronounced.

The soil apparently most suited to the cultivation of this variety is damp or even wet, the cultivation being similar to that of the ordinary Potato, except that in order to avoid drying the soil ridging is not desirable. Harvesting is easy owing to the position of the tubers, and owing to the abundance of the foliage a single hoeing is sufficient. The yield obtained is apparently very large, being equivalent on the small area planted to about 40 tons per acre. The tubers are much appreciated by stock.

PLANTING OF FRUIT TREES ON CLAY SOIL.

At a time when fruit trees are being planted it may not be amiss to call attention to a method that has recently been practised in some parts of Germany, with, it is said, conspicuous success. On strong clay soil it is known that the roots of trees often suffer through lack of air, and this difficulty may be largely avoided by interstratifying the soil beneath the roots with layers of hedge brushings or similar material. A hole, 2 feet to 3 feet deep and twice this in width, is first made, in the bottom of which some 6 inches of

brushings are placed. On this a layer of soil of similar depth is deposited, then another layer of brushings, and, finally, the tree is set in and secured in the usual way. Trees so treated are said to make very vigorous growth, and to have great power of resisting drought and other prejudicial influences.

SOCIETIES.

PLYMOUTH CHRYSANTHEMUM SHOW.

The Chrysanthemum show that was opened on November 1 in the Plymouth Guildhall was decidedly above the average of late years, although some slight diminution was noticeable in the number of cut blooms staged. The stands were throughout of a high order of merit. Mr. F. S. Vallis in the open classes and Sir Reginald Pole-Carew in the Devon and Cornwall classes being particularly fine. Fruit provided an exhibition in itself, over 1,200 dishes being staged, which contained splendid specimens of Apples and Pears. Vegetables also were well shown, the mammoth examples astounding the public by their size. Chrysanthemum groups, groups of miscellaneous plants, Orchids, greenhouse plants in variety, and floral decorations, comprising shower bouquets, wreaths, crosses, &c., added considerably to the display, as did the stands contributed by several nursery firms.

PRIZE LIST.

Forty-eight Japanese blooms: First, Mr. F. S. Vallis, with a splendid and faultless stand of huge blooms in the best condition.

Montigny was one of Calvat's new seedlings sent out this year, and was a splendid bloom, measuring 12 inches across and 3 inches in depth. The broad, loosely incurved petals were clear pale yellow in colour. This bloom received a special award as the best exhibit in the show. Mr. Vallis stated that he had three blooms on his plant, the other two being equally as fine as the one exhibited. It is a variety that evidently cannot be excelled when well grown. The stand received the West of England Chrysanthemum Society's certificate of merit; second, Mr. G. W. Drake, with a stand of fresh blooms that would have been equal to taking premier honours in most exhibitions; third, Mr. J. R. Gulson.

Twenty-four Japanese blooms: First, Mr. F. S. Vallis. Six Japanese, white: First, Sir John Shelley. Six Japanese in variety: First, Mr. J. R. Gulson. Eighteen Japanese, distinct, in vases: First, Mr. B. H. Hill; second, Mr. J. E. C. Boulds; third, Sir John Shelley. Twelve sprays of single Chrysanthemums: First, Mrs. A. Reed.

DEVON AND CORNWALL DIVISION.

General Sir R. Pole-Carew was first for twenty-four, twelve, and six Japanese blooms, and for six Japanese incurved, Lady Buller winning several second prizes.

Six vases Japanese, three flowers in a vase: First, Mrs. Bainbridge.

Group of Chrysanthemums: First, Mr. G. Soltan-Symons, with a fine and varied collection of splendid flowers.

For a miscellaneous group of stove and greenhouse plants Messrs. J. Webber and Sons were first with a collection comprising *Lilium longiflorum*, *Tuberosis*, *Clivias*, *Bouvardias*, *Orchids*, *Ericas*, *Cyclamen*, *Begonias*, *Pelargoniums*, and *Chrysanthemums*, set off by *Palms*, *Crotons*, *Caladiums*, *Dracaenas*, *Asparagus*, and *Maidenhair*; second, Mrs. J. C. Dormer.

FRUIT AND VEGETABLES.

In Apples and Pears Sir John Shelley carried off the bulk of the prizes, closely followed by Mr. J. R. Gulson, while among the other winners were General Sir Reginald Pole-Carew, the Earl of Mount Edgumbe, the Earl of Morley, the Rev. S. Baring Gould, and Lady Buller.

Mr. F. R. Rodd won the chief prizes for Grapes, and the Earl of Morley carried off first prize for a collection of salads. In vegetables the chief prizes were won by Mr. B. H. Hill and Sir John Shelley.

NON-COMPETITIVE EXHIBITS.

Among the nurserymen's exhibits the Devon Rosery Company, Torquay, staged a fine collection of Roses cut from the open ground, including the lovely Frau Karl Druschki, Augustine Guinoisseau, Viscountess Folkestone, Grüss an Teplitz, Rubens, Pink Rover, Victor Hugo, La France, Charles Darwin, Boule de Neige, Mme. Falcot, G. Nabonnand, Mme. A. Chatenay, Sunset, Mme. Lambert, Bonquet d'Or, Mrs. Sharman Crawford, and many others, also a fine assortment of Apples and Pears.

Messrs. E. Veitch and Son, Exeter, had an interesting stand containing Violets Luxonne, La France, Princess of Wales, Marie Louise, Perle Rose, Baron Rothschild, sulphurea, St. Helens, Mrs. J. Astor, and Admiral Avellan, *Cyclamen*, *Gloriosa superba*, *Pancratium macrostephanus*, *Nerine Fothergilli*, *Bouvardias*, including King of the Scarlets, *Amaryllis Belladonna speciosa purpurea*, *Senecio pulcher*, *Romneya Coulteri*, *Carnations*, *Nierembergia filicaulis*, *Echeveria farinosa*, *Veronica gloriosa*, *Physalis Franchetti*, *Rhododendron Princess Alexandra*, the crimson fruit of *Thiandantha dubia*, *Euonymus europaeus albus* fruiting, *Magnolia Lennel*, as well as *Chrysanthemums*, Apples, and Potatoes, amongst the latter being the famous Eldorado.

Messrs. T. Chalce and Son, Plympton, had the new *Smilax asparagoides myrtifolia*, *Nephrolepis Piersoni*, also a novelty; *Ruellia macrantha*, *Plumbago capensis*, Orchids, Lily of the Valley, Epiphyllums, and varied foliage plants.

Mr. N. Lewis, Bridgewater, exhibited a collection of Michaelmas Daisies. Mr. H. Hodge, St. Austell, staged a quantity of exceptionally fine tuberous *Begonia* blossoms, double and single, some of the latter being 6 inches across.

Mr. Vincent Slade, Taunton, showed a representative collection of the new zonal *Pelargoniums*, including *Mary Beton* and *Snowstorm*, white; *Duke of Norfolk*, crimson; *The Sirdar*, brilliant scarlet; Mrs. Simpson, white with pink eye; *Winston Churchill*, crimson, white centre; *Lady Curzon*, flesh-pink; *Ian Maclaren*, apricot-pink; *Raspail Improved*, double Jacoby, Mme. Carnot, double white; *Pasteur*, double, flesh-pink; *M. Haste*, double pink; and the curious scarlet *Fire Dragon*.

Messrs. Sutton and Sons exhibited their newest Potatoes, which were awarded a certificate of merit. Messrs. Saunders and Biss, horticultural builders, Exeter, showed specimens of their patent glazing, together with albums containing photographs of glass houses erected by them.

TORQUAY CHRYSANTHEMUM SHOW.

ON the 3rd inst. the Torquay District Gardeners' Association held a Chrysanthemum show in the large hall of the Bath Saloon in that town. The display was decidedly above the average of recent years, though cut blooms were not so numerous as was the case fifteen years or more ago, when, under the management of the defunct horticultural society, a large array of stands, filling an entire room, was annually exhibited. The quality of the exhibits, in cut blooms, specimen plants and groups, was, however, distinctly good, and miscellaneous plants, table decorations, arrangements in epergnes, baskets, and vases, together with numerous nurserymen's exhibits, contributed in producing a particularly bright and effective show. The association has, fortunately, tided over the period of financial depression which three seasons ago considerably marred its programme, and good and numerous prizes were offered, which produced keen rivalry amongst exhibitors.

PRIZE LIST.

Cut blooms, twenty-four Japanese: First, Mr. J. R. Gulson second, General Sir Reginald Pole-Carew; third, Mr. J. N. Whitehead.

Twelve Japanese: First and certificate of the National Chrysanthemum Society, Mrs. Bartholomew; second, Rev. W. P. Alford; third, Dr. J. Quick.

Six Japanese: First, Mr. E. H. Price; second, General Sir Reginald Pole-Carew; third, Mr. J. R. Gulson.

Six Japanese, incurved: First, Colonel Cary; second, Miss Congreve.

Four vases of three blooms: First, Mr. J. N. Whitehead; second, Colonel Cary; third, Mr. S. B. Cogan.

Six Japanese, white: First, Mr. J. N. Whitehead, with Mrs. J. Lewis; second, Colonel Cary, with finer blooms of *Elsie Fulton*; third, Rev. W. P. Alford, with Mme. G. Henri.

Six Japanese, yellow: First, General Sir Reginald Pole-Carew, with splendid F. S. Vallis; second, Mr. J. N. Whitehead, with the same variety; third, Mr. J. R. Gulson, with the same.

Six Japanese, any other colour: First, Rev. W. P. Alford, with W. R. Church; second, Dr. J. Quick, with Mrs. Barkley; third, Mr. J. N. Whitehead, with Godfrey's King.

Twelve Japanese, incurved: First, Mr. J. R. Gulson; second, Mr. J. N. Whitehead; third, Dr. J. Quick.

Epergne of cut Chrysanthemums: First, Mr. F. Perrett, with a graceful arrangement; second, Mr. G. Emmett.

Vase of cut Chrysanthemums: A large class. First, Mr. F. Perrett; second, Mr. J. N. Whitehead; third, Mr. G. Emmett.

Table decoration: First, Mr. G. Emmett, with a pleasing arrangement of sprays of small, orange-brown Chrysanthemums and flowers of *Tropaeolum tuberosum* set off by *Maidenhair Fern*, *Asparagus tenuissimus*, and flowering Grasses; second, Mr. W. Miuife, with pink Chrysanthemums and white *Marguerites*; third, Mr. F. Perrett, with pink and white winter-flowering *Begonias*, arranged with *Eulalia zebrina* and *Selaginella*.

Basket of autumn foliage and berries: First, Mr. G. Emmett; second, Mr. W. Miuife; third, Mr. W. H. Damarell. In every case in this class the arrangement was far too crowded.

Group of Chrysanthemums: First and certificate of the National Chrysanthemum Society, Mr. Dundee Hooper; second, Captain Tottenham; third, Colonel Gardoe; fourth, Mrs. C. Wise.

Three specimen single Chrysanthemums: First, Dr. J. Quick; second, Mr. W. H. Buleid; third, Colonel Gardner.

Three specimen Chrysanthemums: First and silver medal of the National Chrysanthemum Society, Captain Tottenham, with three exceptionally good plants; second, Colonel Gardner; third, Mr. Dundee Hooper.

Six flowering table plants: First, Captain Tottenham; second, Dr. J. Quick; third, Colonel Gardner.

Six foliage table plants: First, Dr. J. Quick; second, Captain Tottenham; third, Mr. F. C. Simpson.

Six Ferns: First, Colonel Cary; second, Miss Congreve.

Six winter-flowering *Begonias*: First, Dr. J. Quick.

Special prize for six vases of cut Chrysanthemums in six varieties: First, Mr. W. P. Baynes; second, Colonel Gardner; third, Dr. J. Quick.

Fruit and vegetables were very good, many splendid specimens of the latter being staged. The silver cup for the best collection of vegetables was won by Mrs. Lambhead.

In nurserymen's exhibits the Devon Rosery Company, Torquay, showed a large stand, the chief object of interest in which was a collection of about 300 blooms of Roses called from the open in their own gardens, among the chief varieties being *Sauvenir de la Malmaison*, *Victor Hugo*, *Pink Rover*, Mrs. Sharman Crawford, Mrs. E. G. Crawford, *Dupuy Jamain*, *Mme. Victor Verdier*, *Ulrich Brunner*, *Ma Capucine*, *General Jacqueminot*, *The Queen*, *Grüss an Teplitz*, *Viscountess Folkestone*, *Clara Watson*, *Bonquet d'Or*, *La France*, Mrs. John Laing, *Enchantress*, *Corallina*, *Mme. Lambert*, *Eugenie Lamesch*, *Marie Rady*, *Duke of Wellington*, and *W. A. Richardson*. Besides the Roses the stand contained a group of pot plants of *Aster grandiflorus* in full bloom, *Salvia splendens*, *Cyclamen*, *Cypripediums*, *Acacias*, *Ericas*, *Begonias*, *Chrysanthemums*, and foliage plants. The same company's fruit farm staged a fine collection of Apples and Pears, Grapes, Tomatoes, Cucumbers, Mushrooms, Cape

Gooseberries, Chillies, *Capsicums* (yellow and red), and a punnet of *Strawberry St. Antoine de Padoue*, as well as sprays of flowering *Laburnum*.

Messrs. W. B. Smale and Son, Torquay, showed the new *Lobelia tenuis*, which promises to prove an excellent bedding plant; *Dracena Doncetti* and *D. Dalieri*, two variegated novelties; a representative collection of *Cactus Dahlias*, including *Joho Burns*, crimson; Mrs. Edward Mawley, yellow; *Premier*, scarlet, very narrow petals *Violetta*, magenta; *Khaki*, orange-buff; *Florodora*, crimson *Red Rover*, W. G. Baldwin, Florence, J. H. Jackson, and many others.

Messrs. R. Veitch and Son, Exeter, showed *Andromeda arborea*, the new *Hypericum patulum Henryi*, greenhouse *Acacias*, *Sarracenas*, *Iberis saxatilis*, *Ceanothus Gloire de Versailles*, *Vernonias*, *Grevilleas*, *fruiting Perennitys* and *Hollies*, and many other plants, as well as good collections of *Chrysanthemum* blooms and Apples.

Mr. W. H. Allward, Torquay, had a bright stand, and Mr. J. Heath, Kingskerswell, showed a collection of Violets, embracing all the newest varieties as well as the old favourites.

ROYAL BOTANIC SOCIETY'S SHOW.

The last exhibition of the year was held on the 9th inst. in the corridor and large conservatory. There was not a large number of outside exhibitors present on this occasion, but a splendid show of Chrysanthemums and a collection of economic and medicinal plants, with produce manufactured from them, made this exhibition one of the most interesting of the season.

Messrs. Thomas Ware (1902), Limited, Feltham, Middlesex, had a fine collection of alpine and choice hardy plants, including *Saxifragas*, *Shortia galacifolia*, *Gaultherias*, *Helianthemums*, *Lithospermums*, &c. A *Wallflower* called *Early Paris* was stated to have flowered within two months of date of sowing. *Asters* were also shown in variety, prominent was *A. grandiflorus*, of good habit, and a rich blue colour (award of merit). *Chrysanthemums* were very effective, and again proved the mildness of the present season by being taken from plants growing in the open (large silver-gilt medal).

Messrs. Ambrose and Co., Cheshunt, staged a fine group of foliage and flowering plants, comprising *Palms*, *Ferns* in variety, *Dracaenas*, *Carnations*, notably the new variety *Fascination*, of a bluish colour (award of merit), and several other varieties, *Lilies of the Valley*, *Cyclamen*, *Liliums*, and *Chrysanthemums*, all combined to produce good effect. The seedling *Grape Melton Constant* was shown in good form (award of merit). Gold medal.

Messrs. Champion and Co., City Road, E.C., showed several new designs in Oak and Teak tubs for shrubs, &c. Vote of thanks.

Messrs. W. Wood and Son, Wood Green, N., exhibited their patent pot-washing machine, which is a distinct advantage over the present method of washing pots. Certificate of merit.

The economic and medicinal plants shown by the society from their collection in the gardens were *Sarsaparilla*, *Coffee*, *Olives*, *Prickly Pear*, *Winter Bark*, *Cinnamon*, &c. Examples of fibre-producing plants were the *Bowstring Hemp*, *Sisal Hemp*, and "Ramee." In most cases the manufactured articles, together with raw fibre, &c., were shown in connexion with the plants. The botanical experiments arranged by the Practical Gardening School showed the effect of various coloured rays of light on plant growth. Apparatus for recording the rate of growth, the water contents, and carbon and mineral contents of certain popular garden plants were on view.

ASCOT CHRYSANTHEMUM SHOW.

IN the Grand Stand the annual autumn show was held on the 9th and 10th inst. Competition was keen in nearly all classes; cut blooms were numerous and good; groups of Chrysanthemums and miscellaneous plants were quite features of the show; fruit and vegetables excellent.

Of cut blooms, the leading class was that for eighteen incurved and as many Japanese. The leading prize was a silver challenge cup.

Mr. Ashman, gardener to C. T. D. Crews, Esq., Billingbear Park, Wokingham, was first with heavy Japanese and irregular incurved; Mr. W. Wilson, gardener to Mrs. Christie, Thnsden, Windlesham, second with better incurved but weaker Japanese.

In a class for twenty-four Japanese, distinct, Mr. Wilson won with medium sized fresh examples of popular varieties well staged; Mr. W. Jinks, gardener to L. J. Drew, Esq., Knowle Green House, Staines, was a close second. For twelve distinct Japanese, Mr. G. Lane, gardener to Miss Ridge, Highfield, Englefield Green, was first with a capital set; Mr. V. Barnes, gardener to A. F. Walter, Esq., Bearwood, Wokingham, was a close second.

Six blooms, any one white flowered variety, was a strong class. Mrs. J. Dunn, full, graceful, and pure in colour, won for Mr. G. Lane first prize; while Mme. C. Tragleackers won second place for Mr. Wilson. In a similar class, for six any other coloured variety, Mr. G. Lane secured the first prize with F. S. Vallis; Mr. Wilson following with *Bessie Godfrey*. Mr. G. Lane had the best six vases, three blooms in each, among four competitors.

Incurved varieties were especially numerous and of good quality. Mr. W. Jinks won for twenty-four distinct with medium sized, neatly dressed examples of popular varieties; Mr. Wilson was a decidedly close second with large but slightly rougher examples. In a class for six any one variety, there was keen competition. That popular variety *C. H. Curtis* won both first and second prizes for Mr. Ashman, and Mr. Baskett, gardener to E. W. Beckett, Esq., Woodlea, Virginia Water.

Single-flowered varieties were a feature, staged in vases, three spikes each of six varieties, Mr. W. Neate, gardener to Miss Thacker, Queen's Hill, Ascot, was first; Mr. F. G. Pearce, gardener to F. B. Randle, Esq., Forewood, Ascot, second.

An attractive class was that for twelve blooms arranged in a basket with any foliage. Mr. J. Sargent, gardener to Dowager Lady Lucas, Heatherwood, Ascot, secured the premier award with an unusually showy exhibit; Mr. Barnes second.

Groups of Chrysanthemums and foliage plants were not numerous, but effective, arranged down the middle of the room. Mr. W. Lane, gardener to Sir E. Durning Lawrence, M.P., King's Ride, Ascot, won the coveted honour with plants carrying good blooms and effectively interspersed with suitable foliage plants; Mr. J. Sargent second. Mr. W. Lane also had the best group of Chrysanthemums only, huge blooms, quite fresh and good foliage, with an effective arrangement.

Naturally grown, nondisshaded plants arranged in a semi-circular group were a distinct feature and well shown by Mr. White, gardener to the Dowager Marchioness of Conyngham, The Mount, Ascot, and Mr. G. Sargent, both excellent groups, in the order here given. Mr. W. Lane won first place for an interesting group of miscellaneous plants, Orchids, Palms, Crotons, Ferns, and Clerodendron fallax, all nicely blended; Mr. J. Sargent second.

CROYDON CHRYSANTHEMUM SHOW.

CROYDON held its seventeenth show in the large Public Hall on the 25th and 26th ult. Owing to pressure on our space we have, unfortunately, been obliged to hold over the report until now. Japanese blooms in vases made a splendid display, and the groups, too, were good. We are glad to see that this society is encouraging the exhibition of the flowers in vases instead of on boards; probably it will not be long before the boards are entirely done away with. Mr. Beckett, the secretary, works hard for this horticultural society, and is to be congratulated upon the success of the show, which the President thought the finest they had had.

The first prize (a challenge cup), the leading class, that for thirty blooms, fifteen Japanese and fifteen incurved, was won by Mr. Bible, gardener to Count Hatzfeldt, Chippenham. Mr. Salter, Woodhatch Gardens, Reigate, was second. The silver cup, given as a first prize for twenty-five Japanese blooms, was won by Mr. Salter, Mr. Lane, gardener to E. V. Coles, Esq., Caterham, being second. Mr. W. Collins, Eogadine Gardens, Park Hill Road, set up the best group of Chrysanthemums in pots, Mr. Cook, Shirley, being second.

In the amateurs' classes Mr. N. Wrightson, Addiscombe, won the silver cup presented by Mr. James Epps, jun., for ten blooms of Japanese, distinct, in vases. Mr. R. E. Mason, Croydon, won the second prize (a silver medal), Mr. Burgess, Merton, being third and taking the bronze medal. Mr. Wrightson also showed the best six Japanese blooms. Mr. W. Philpot sent the best Pompons. The most attractively arranged table decoration, Chrysanthemums only, was set up by Mrs. A. Robinson, Wallington.

Of gardeners living within the borough of Croydon Mr. Mills was the most successful; he was first for a group of plants, for ten Japanese blooms, and for twelve Japanese blooms. Mr. L. Gouch showed the best six Japanese flowers. The finest dessert Apples were from Mr. O. Jeal, Mr. J. Johnson being second.

In the open classes for fruit, the best twelve dishes of Apples were shown by Mr. Bible, Mr. J. D. Simmonds, Tandridge Court Gardens, being second. For six dishes of Pears Mr. Bible was also first. The best bunches of black Grapes were staged by Mr. Lintott, and Mr. W. Mancey, gardener to A. Benson, Esq., Reigate, showed the best white. Mr. Bible, who seemed practically invincible, was again first for a collection of twelve kinds of vegetables, Mr. Lintott being second.

The best Japanese bloom in the show was one of the variety Henry Perkins, from Mr. Mills; the best incurved was Mme. Ferlat, shown by Mr. Bible.

Among the many non-competitive displays that added so much to the general interest and effect of the exhibition were: Fruit from Messrs. J. Cheal (Crawley), Ambrose and Son (Cheshunt), and John Kehler; Chrysanthemums from Messrs. Wells and Co. (Earlsfield), W. Turney (Croydon), H. Brazier (Caterham); Carnations from Messrs. Cuthson, &c.

CORN EXCHANGE CHRYSANTHEMUM SHOW.

ON Wednesday, the 9th inst., a Chrysanthemum show in aid of the funds of the Corn Exchange Benevolent Society was held at the Corn Exchange Tavern, Mark Lane.

The schedule comprised nine classes, the first four being open to members of the corn trade only, four more being open to amateurs, non-members of the corn trade, and one class open. There was fairly good competition in most of the classes, and the prizes, besides being money, included two silver cups, each of the value of £5 5s.

For twelve blooms Japanese, distinct, Mr. F. W. Smith was first with a nice lot of bright well set-up blooms, comprising F. S. Vallis, Mrs. Barkley, Henry Perkins, General Hutton, Geo. Lawrence, and others. Mr. W. R. Clark came in second. The next class was also for twelve blooms, but half were to be Japanese and half incurved. Mr. F. W. Smith was again first, and Mr. W. R. Clark second. In the winning stand Mme. Carnot was very fine, and Lady Isabel, Countess of Warwick, W. R. Church, Mrs. G. Mileham, Bessie Godfrey, &c., were good examples. Six cut blooms of Japanese, distinct, were shown by Mr. G. M. Edwards, who was placed first for a board containing Mrs. W. Mease, Mafeking Hero, Queen Alexandra, Geo. Lawrence, Mrs. H. Hamilton, and Mr. T. Carrington (?). The second place was occupied by Mr. F. W. Smith. For six blooms, half incurved and half Japanese, Mr. F. W. Smith and Mr. W. R. Clark were placed in the order named.

A very fine stand of twelve distinct Japanese came from Mr. E. Mocatta in the non-members' division, and he was awarded leading honours for grand specimens of F. S. Vallis, Mafeking Hero, Mme. C. Nagelmackers, Mme. Carnot, Florence Penford, Henry Stowe, G. Lawrence, Mrs. E. Thickell, Mrs. F. W. Vallis, Lady Conyers, Henry Perkins, and General Hutton. Mr. C. T. Cayley came in second. There were six competitors in this class, Mr. James Preece showing a capital twelve.

In the other classes the principal winners were Messrs. H. J. Sequeira, E. Mocatta, C. D. Cooper, and F. W. Smith.

The open class was for six cut blooms, distinct, staged in vases. Mr. E. Mocatta and Mr. F. W. Smith put up some capital exhibits, and were first and second respectively.

Donations of Orchids, Carnations, &c., were received by various patrons, all of which were sold after the show for the benefit of the funds of the Benevolent Society.

PEOPLE'S PALACE CHRYSANTHEMUM SHOW.

A CHRYSANTHEMUM show was held in the Queen's Hall at the People's Palace, Mile End Road, on Friday and Saturday, the 11th and 12th inst. The exhibits, especially those from the members—living, as they do, in one of the most crowded districts of London—were interesting from many points of view. A liberal schedule was provided, prizes ranging from 2s. to 25s., and the competition was keen, there being a good many entries in most of the classes. Friends of the society sent exhibits not for competition, Mr. Leopold de Rothschild's handsome group of foliage plants, Bamboos, Lilies, Chrysanthemums, &c., being much admired. Mrs. C. B. Hayward and Messrs. Hobbies, Limited, sent cut Chrysanthemums, as also did Mr. F. A. Eyan. A nice collection of Apples was staged by Mr. C. E. Shea. Vases, baskets, epergues, &c. were well shown, and a stall for the sale of cut flowers, the proceeds to go to the London Hospital, was also provided.

In the competitive classes among the members we noticed the following varieties as those most freely shown: F. S. Vallis, Mme. G. Debric, Mrs. Barkley, Mme. Herwege, M. L. Rémy, Mme. Carnot, Mme. Gustave Henry, M. Pankoucke, Phobus, Ma Perfection, Iolene, C. H. Curtis, Countess of Warwick, &c.

Some good groups were also staged of plants in pots. Altogether this is a most useful society, and is doing excellent work in the district. The secretary, Mr. R. H. West, and committee are to be congratulated on the result of their labours among the poor people of Mile End, whose advantages are very few from a horticultural point of view, and yet are made so much of both at this and the summer show.

DUMFRIESHIRE AND GALLOWAY CHRYSANTHEMUM SHOW.

THIS show was held in the Mechanics' Hall, Dumfries, on the 9th inst., Mr. W. J. Herries Maxwell, M.P., presided at the opening ceremony, which was performed by Miss Daisy Johnstone-Douglas, Coulongan Castle. The show showed a remarkable advance upon that of last year, and the cut blooms particularly were good. In the open classes for cut blooms the principal winners were Messrs. G. Fairbairn and Son, Carlisle, who showed capital blooms, though some were small. Messrs. James Service and Sons, Maxwelltown, Dumfries, were also successful exhibitors. In the gardeners' classes for cut blooms the most successful competitor was Mr. James Henderson, Elmbank, who secured the silver medal for the greatest number of points in these classes. Mr. Henderson showed remarkably well all through, and carried off all the first prizes, his closest competitor being Mr. J. Duff, Threave, Castle-Douglas. In the plant classes the leading prize was for a circular group arranged for effect, and here Messrs. James Service and Sons repeated their success of last year with an excellent group of plants. Mr. James Houston, Crichton Royal Institution, was second. The other plant classes contained nothing specially noticeable, except Ferns, table plants, and a magnificent specimen plant of single Chrysanthemum, Miss Rose, 5 feet in diameter, which was awarded a certificate of merit in addition to the first prize in its class. It was shown by Mr. James Henderson.

Fruit and vegetables were well shown, and the Apples were remarkably good. Mr. J. Duff won with Grapes; Mr. J. M. Stewart had the best collection of Apples, Mr. J. Duff being second. Mr. J. M. Stewart was first for Pears. Mr. Stewart had also the best collection of vegetables, and other successful exhibitors in these classes were Mr. K. Mackenzie, Conheath, Dumfries; Mr. J. Duff, and Mr. A. Duff, Maxwelltown. In the special classes interest centred in that for the best twelve Japanese blooms, the judges, after careful scrutiny, finally awarding the prize to Mr. J. Houston, with an excellent stand of fresh blooms, Mr. J. Duff coming second, and Mr. J. Henderson third. Miss L. Rutherford, Crichton House, had the best epergue of Chrysanthemums, her exhibit being very tastefully arranged.

Messrs. G. Fairbairn and Son showed florist's decorative work of great beauty and Chrysanthemum blooms; Messrs. James Service and Sons a large number of varieties of Potatoes; and Mr. James Kerr, Dumfries, twenty varieties of new seedling Potatoes, raised by his late father, Mr. W. Kerr, and himself.

DULWICH.

THIS show was held at the Baths, East Dulwich, on the 8th and 9th inst. The beautiful display made by the numerous exhibitors on the above dates should be very encouraging to the executive. Almost all the classes were well filled, and an interesting feature was the great number of successful exhibitors. At local shows it too often happens that a limited number of exhibitors take all the leading prizes, but this was not the case at Dulwich. The groups of pot plants are always a great feature here, and, there being several different classes for these, it ensures a great display. There were about twenty good groups.

In the class for six specimen bush plants there were four competitors. The first prize went to Mr. S. Martin, gardener to W. Harvey, Esq., who had good plants of Val d'André, Lady Hanham, Miss Mildred Ware, Viviani Morel, and others; second, Mr. W. A. Hurst, gardener to A. F. Fitter, Esq., Streatham, in whose exhibit Mrs. Greenfield and Miss Nellie Pickett were good; third, Mr. W. Webster, gardener to W. Higgs, Esq., Clapham, who also had very creditable plants. In the open class for a group of plants, Mr. A.

Winter, gardener to E. Manwaring, Esq., took first honours with a well-arranged group of plants with fine blooms; second, Mr. E. Houllton, gardener to J. T. Gardner, Esq.; third, Mr. E. Rea, gardener to R. S. Tilling, Esq., Herne Hill.

The classes for blooms shown in vases were a great feature of the show. To that for four vases, three blooms in each, Mr. A. Winter was first with fine blooms of F. S. Vallis, Mrs. Mease, Australie, and Mme. Carnot; second, Mr. T. Martin, gardener to W. Harvey, Esq., Dulwich; third, Mr. C. Bellis, gardener to Mrs. Faulkner. For a vase of seven blooms in variety the first prize was won by Mr. G. Rouse, gardener to J. S. Halliday, Esq., Dulwich, who had very fine blooms; second, Mr. A. Winter; third, Mr. H. Tindall, gardener to G. Hatch, Esq.

For a vase of incurved, five blooms, one variety, Mr. A. Winter was first with beautiful blooms of Duchess of Fife; second, Mr. E. Rea, with fine blooms of G. H. Curtis; and Mr. W. A. Hurst was third with the same variety. For a vase of five Japanese blooms, one variety, Mr. A. Winter was first with massive blooms of F. S. Vallis; second, Mr. T. Martin, with the same variety; third, Mr. C. Bellis, for good blooms of Florence Penford. In a class for one Japanese and one incurved bloom with foliage, the first prize was gained by Mr. A. Winter with Duchess of Fife and F. S. Vallis, this bloom also gaining an extra prize for the finest bloom in the show; second, Mr. T. Martin; third, Mr. C. Bellis. In a class for six bunches of singles the first prize was gained by Mr. G. Duncan, gardener to R. Wisniam, Esq., with some very pretty blooms of Elsie Neville, Crown Jewel, Admiral Symonds, and Roupeil Beauty; second, Mr. J. Sibley, gardener to A. Carson Roberts, Esq., who had very similar blooms; third, Mr. G. Rouse. In a class for twenty-four blooms (sixteen Japanese and eight incurved) there was only one entry, Mr. A. Winter taking the first prize with a very good lot of blooms. In the incurved blooms W. Higgs, Mrs. F. Judson, Duchess of Fife, and C. H. Curtis were good; the Japanese included fine blooms of G. Mileham, Mme. Paolo Radaelli, and F. S. Vallis. In a class for twelve Japanese, on boards, Mr. Winter was again first; second, Mr. T. Martin; third, Mr. Bellis. In a class for six Japanese blooms, Mr. Haselgrove, gardener to W. Brauder, Esq., Sydenham Hill, was first; second, Mr. A. Hurst; third, Mr. J. Richards, gardener to W. Pierson, Esq., Herne Hill. In a class for six incurved blooms Mr. Winter was first; second, Mr. T. Collins; third, Mr. J. Sibley. In a class for six Anemone-flowered, shown in vases, Mr. T. Martin was first; second, Mr. J. Sibley.

For a basket of Chrysanthemums, arranged with foliage, Mr. A. M. Falkner was first with a good arrangement of yellow and bronze blooms; second, Mr. J. Sibley, with some pretty singles and doubles, yellow and white; third, Mr. G. Duncan. In a class for an epergne Mr. C. A. Young was first; second, Mr. H. J. Williams; third, Mr. A. M. Falkner. In a class for an epergne (ladies) Mrs. Wolfe was first; second, Mrs. Allen. For a basket with foliage the honours went to the same ladies. The floral arrangements were hardly equal to last year.

All the amateur classes were well filled, and many of the exhibits were of excellent quality. In the non-competitive class Messrs. Peed and Son, Norwood, put up a very pretty group of bright blooms, and were awarded a silver-gilt medal. The same award was given to Mr. E. Foster, Nunhead Cemetery, who had a fine group of plants.

Mr. Norman Davis showed some splendid Japanese blooms on boards, Beauty of Leigh, Mme. Paolo Radaelli, Marshal Oyama, Lady Curzon, Guy Hamilton, Maurice Rivoire, and Roi d'Italie being specially fine.

STIRLING CHRYSANTHEMUM SHOW.

THE annual show of the Stirling Chrysanthemum Association was opened in the Public Hall, Stirling, on the 10th inst. by the president, Mr. Graeme A. Whitelaw of Strathallan Castle, and was continued on the 11th inst. The show was much the largest and finest yet held by the association, and the improvement was noticeable in practically all departments. It may be observed, however, that the quality of the exhibits in the classes for the cut blooms was remarkably close, and that only half a point decided the leading prize—that for the President's Cup, which was won by Mr. G. Stewart, Tulliallan Castle, with twenty-four splendid blooms of Japanese in eight varieties, three in each vase. Mr. Stewart's victory is very creditable, close as it was, for his next rival was the celebrated grower, Mr. D. Nicoll, Rossie; Mr. Waldie, Dollarbeg, another first-class grower, being third.

The Corporation of Stirling Cup for four vases of Japanese, with three blooms each, was won by Mr. J. Birse, Breitham Park; Mr. G. H. Pearson, Viewforth, being second; and Mr. W. Watt, The Lea, Bridge of Allan, third. Other leading winners in the cut bloom open classes were Mr. J. Wood, Dunmore Park; Mr. A. Morton, Blairdrummond; and Mr. J. MacDonald, Castle View.

Plants were good, as a rule, the leading winners with these being Mr. J. Wood, Mr. J. Birse, Mr. W. Watt, and Mr. R. Jenner, Newhouse. Bouquets, vases, and epergues were generally of great beauty, the leading winners being Mr. J. Waldie, Mr. J. Wood, Mr. T. Fraser, and Mr. R. Jenner. In the classes for other plants than Chrysanthemums Mr. T. Lunt, Keir, who did not exhibit in the Chrysanthemum classes, carried off the bulk of the honours, but Mr. J. Birse, Mr. L. McLean, Alloa, and Mr. J. J. Wann, Kennet, were very successful also. The fruit classes were excellent, and the leading winners were Mr. T. Lunt, Mr. J. Waldie, Mr. J. J. Wann, and Mr. A. Morton. Vegetables were capital, Mr. D. McMichan, Mr. J. Waldie, Mr. M. Carrigan, and Mr. D. McNeill being the most successful. Amateurs showed well in their classes.

There were several non-competitive exhibits, that which attracted most attention, perhaps, being Messrs. G. Bunyard and Co.'s collection of Apples, Messrs. W. Drummond and Sons' stove and greenhouse plants and conifers, Mr. John Craig's plants and wreaths and bouquets, and Messrs. D and W. Croll's stand of plants.

THE GARDEN

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THE PRESERVATION OF WILD PLANTS.

AT the monthly dinner of the Horticultural Club, held recently, Professor Boulger gave an extremely interesting address relating to Gilbert White's Natural History of Selborne and the Selborne Society, which has been founded for the preservation of wild plants and animals in honour of that renowned naturalist and in sympathy with his pursuits. Although inevitably the light of later knowledge has revealed many errors in Gilbert White's assumptions, and the field in which he worked was extremely limited, his history still remains and ever will remain one of our most prized classics in every library worthy of the name. He has been described as "a lens exquisite in definition but of small field," and every Nature lover knows how valuable is such an instrument, and how much more capable it is of investigating Nature's secrets and marvels than one of wide but superficial range. It is due to this minuteness of record and unbiassed adherence to facts that his book has been handed down in about ninety editions from generation to generation as a model, and is now obtainable in so many forms. The secret of success in his case may be epitomised in the rule "to use one's eyes and never despise the smallest trifles." No small merit, indeed, must a man have possessed for his area of experience, the little and remote village of Selborne, five miles from a railway, to remain after two centuries the bourne of innumerable pilgrimages of Nature lovers all the world over.

The Selborne Society, founded by Mr. G. Musgrave, and of which Professor Boulger is the spokesman as editor of *Nature Notes*, is doing invaluable work in the line it has selected in fostering laws and regulations for the protection of wild plants, &c., from the extermination which threatens them and by providing a recognised record of naturalistic observation as far as possible on Gilbert White's own lines. In the discussion which followed the address many suggestions were made as to the best means of checking that vandalism to which is due the imminent extermination of many of our plants not merely rarities, but also normally abundant ones, such as the Primrose and many of our Ferns. The point of the whole matter appears to be a lamentable tendency to regard these treasures as merely so many sources of pounds,

shillings, and pence. Cases were mentioned of persons who were professional naturalists staying for weeks together by the habitats of rare plants and butterflies, and collecting them ruthlessly to the point of extinction in order to sell them to stay-at-home collectors for their herbaria, &c. Some even were criminal enough to destroy what they did not need in order to enhance their rarity, and so increase their selling value. The refusal by the Press of all advertisements tending to encourage the rooting up of plants by rural villagers was strongly advocated. The holiday-making Fern collector was also mentioned as a vandal in most cases, denuding Ferny habitats ruthlessly, only to dump the spoil into unsuitable places and thus to practically destroy them.

One speaker mentioned a practical method of counteracting the evil by collecting the seed of remaining rarities and scattering it freely about the natural habitats. *Campanula rotundifolia* was re-established on one of our London commons in this way, after finding but two or three survivors where it was once recorded as abundant.

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.

LILACS AND LILIES OF THE VALLEY.

From Lily Nursery, Dersingham, King's Lynn, Mr. T. Jannoeh sends some bunches of Fortin's Lily of the Valley, from retarded crowns, and some sprays of Lilac Marie Legraye, cut from "etherised" plants. Both were very fine indeed. Mr. Jannoeh makes large use of ether in forcing Lilacs, and to judge by the flowers sent he is most successful in their treatment.

FLOWERS FROM SOMERSETSHIRE.

A welcome lot of flowers comes from Mr. Crook, Forde Abbey Gardens, Chard. *Gloriosa superba grandiflora* was exceptionally fine, the colouring remarkably bright and cheery. This is a very good form, and special note must be made of Mr. Crook's red form of *Primula obconica*, the colour

being very rich and unusual. *Salvia splendens grandiflora*, the red-flowered *Schizostylis coccinea*, and the well-known *Source d'Or* outdoor *Chrysanthemum* were in this gathering. Our correspondent remarks: "Seldom do we see the scarlet *Salvia splendens grandiflora* flowering beside white and other *Chrysanthemums*. These with the *Schizostylis* make the garden bright in mid-November. *Chrysanthemum Source d'Or* is still one of the best for the open garden and to cut from."

PHOTINIA SERRULATA.

Mr. Magor sends from Lamellen, St. Tudy, Cornwall, flowering shoots of *Photinia serrulata*, with the following instructive note: "Enclosed are flowers of *P. serrulata*, which is, perhaps, more notable for its bright red shoots in very early spring than for its flowers. It is a native of Japan and China, and should be planted in a rather sheltered spot, as the young leaves, which are its chief attraction, are apt to get torn by the wind. Here it has formed a large bush over 20 feet high, and is just coming into full bloom."

SCHIZOSTYLIS COCCINEA.

Mr. T. B. Field, Ashwellthorpe Gardens, near Norwich, writes: "I am sending for your table flowers of *Schizostylis coccinea*, which is one of the most useful plants we have at this time of the year. A sunny position should be chosen for it. I have seen it growing well at the base of a south wall. The plants require breaking up and replanting every second year, and any manure it may be considered needful to give should be applied on or near the surface, in order to discourage a rank growth. The blooms sent were taken from plants growing on a north border. If frost is not too severe flowers may be looked for almost till Christmas."

HYDRANGEAS FROM NORTH WALES.

Mr. Roberts, The Gardens, Tan-y-bwlch, North Wales, sends a box of interesting flowers of blue *Hydrangea*, the scarlet *Salvia*, and a beautiful *Chrysanthemum*, Queen of Whites: "I cannot resist sending up a few blooms of *Hydrangeas*, although somewhat faded in colour, illustrating as they do their value as autumn-flowering shrubs of much merit in mild districts. You may perhaps imagine the effect they produce here either in great single bushes or in irregular groups of scores together; solid masses of beautiful bloom. They have been really quite a sight for some months, and are so even now. *Salvia splendens grandiflora* and *Chrysanthemum* Queen of Whites are used extensively here in many ways for producing a late autumn display, and are effective anywhere, but I think the most striking bit of colour we have at present is on an irregular, comparatively level patch on the summit of one of our many massive rocks with pieces of rock cropping up here and there. The *Salvias* and *Chrysanthemums* were mixed among *Azalea mollis*, the rich autumnal tints of the foliage of which brightened up the greenery until the former became conspicuous. The two associate well together, and are now, with their immediate surroundings, a very pretty and refined picture, but alas! the first nip of frost will destroy, and as yet we have had none this autumn, but fear it is not far off, for as I write the surrounding hills are white with snow. Can you or

some of your correspondents and readers give me the name of a Chrysanthemum the counterpart of Queen of Whites in colour, habit, flower form, and style of flower (lace-like and elegant), but which comes in bloom naturally in the middle of September; and also a bright scarlet *Salvia* that will bloom at the same time? *Salvia* Scarlet Queen is a trifle earlier than *Salvia splendens grandiflora*, but would like one still earlier and as showy. This particular bed was attractive earlier in the summer with hundreds of late-planted *Lilium longiflorum*, sparsely interspersed with clumps of the annual *Lupinus* in their various colours and a dash of *Phlox Coquelicot* here and there, preceding which, of course, were the *Azalea* blooms intermixed with late spring-flowering plants, so it has been a bright spot for a long season. [We hope some reader will help our correspondent.—Ed.]

POTATOES TO EAT.

If the Rev. G. H. Egleheart and Mr. A. R. Goodwin (page 342) prefer a close, yellow Potato to a floury Windsor Castle or Up-to-Date they are welcome to eat it. But I know which is the more acceptable in ninety out of a hundred gardens. I said nothing about size of individual tubers, and I have never yet had to rely upon the judgment of the cook so far as quality in vegetables is concerned. The comparisons in both notes are, as Mr. Goodwin says, very amusing. Gros Colmar Grape is first introduced; why? Everyone knows that with the exception of Black Alicante it is more easily and cheaply grown than any other late Grape, and so it is produced by the ton to supply fruit of fair quality at a moderate price to those who cannot purchase Muscats at three, four, or five shillings per pound. Mr. Goodwin wants me to explain why *Beurré Clairgeau* Pear and Worcester Pearmain Apple are always in demand. They are, I suppose, bought by those who want a somewhat showy fruit at a reasonable price, and who cannot afford threepence or fourpence each for *Doyenné du Comice* or sixpence per pound for Cox's Orange Pippin, prices at which they have been respectively retailed in this neighbourhood. The inability to bring Muscat Grapes and the choicest Apples and Pears within the reach of the million is to be deplored. If the price is prohibitive what is to be done?

What connexion, however, there is between the fruits named on page 342 and Windsor Castle and Up-to-Date Potatoes I leave to the ingenuity of your contributors to discover; they are neither cheap, nor are they, from a Potato standpoint, of indifferent quality. On the contrary, they will fetch in midwinter, late winter, and early spring quite the top price; that is if they are a good level sample. Mr. Egleheart seems to be under the impression that Up-to-Date is favoured because of its size. Not at all. The retailer, whether in the shop or street, will not buy extra-sized tubers. How is it then that this Potato is always in request and the price is well maintained? I suppose they are not bought to look at. I did not claim for either Windsor Castle or Up-to-Date the acme of perfection in a Potato. I said they were in their respective seasons, both from the view of cropping and quality, about the best procurable. I fail to see anything "amusing" about a simple statement of facts. E. L. B.

P.S. I am quite aware that on some soils Up-to-Date comes very large, unshapely, and watery; but that is the fault of the cultivator, not of the Potato.

Mr. H. has been said of late respecting the Northern Star Potato. As I have now had one or two tubers cooked I can speak more definitely than I could previously have done. With me it has cropped well, having only six tubers diseased in lot.; it also grows very late into the autumn. Certainly it was when cooked a fairly good table Potato, but, when classed with Sutton's Windsor Castle Potato and Reliance for quality, I consider it a long way behind these two. I never wish for a finer Potato than the last named; it does full justice to its name, is a very heavy cropper, and the quality when cooked is excellent. Anyone who has never given these two Potatoes a trial

should do so, and I feel sure they would be pleased with them. I have now tasted one or two others of recent introduction, but they are not so good as the above two varieties. Perhaps some other readers and growers will have a word to say respecting the Windsor Castle and Reliance Potatoes.

Rûy Gardens, Corwen.

J. S. HIGGINS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 29.—Royal Horticultural Society at 1 p.m. Exhibition of Colonial-grown Fruit.

December 6.—National Amateur Gardeners' Association meeting.

December 8.—Annual Meeting and Dinner of National Rose Society; National Amateur Gardeners' Association, Annual Dinner.

December 13.—Royal Horticultural Society's meeting at the New Hall, Vincent Square.

The Rev. Professor Henslow.—It is with regret we hear that the Rev. George Henslow has resigned the secretaryship of the scientific committee of the Royal Horticultural Society, a position which he has filled for twenty-five years without pecuniary reward. Services so unselfishly given in the interests of scientific research and the society, at whose meetings his descriptive lectures have been appreciated for their clearness and simplicity, deserve the warmest praise. Mr. Henslow is removing from London to Leamington, but will, we are glad to say, lecture occasionally at the usual fortnightly meetings of the society. Mr. Chittenden is the secretary until the end of the year. At a meeting of the scientific committee recently the following resolution was unanimously passed:—"Resolved that: This committee, on hearing of the resignation of its secretary, the Rev. Professor Henslow, V.M.H., desires to place on record its sense of gratitude for the unvarying courtesy and marked ability he has shown in the disinterested discharge of his duties during a period of a quarter of a century. The committee trusts that, although the Professor is compelled by circumstances to retire from the regular duties of his office, it may still be able to profit by his experience and to welcome him occasionally at its meetings."

Patrinia villosa.—This Japanese perennial is a most beautiful autumn-flowering plant, suitable for the border or the wild garden. The leaves are dark green, three lobed, villose, and the flowering-stem reaches a height of 1 metre and more. The top of the stem and the branches form a large corymb covered with myriads of white sweet little blossoms, which last more than one month. They are good for cutting purposes, as they will open in water. The rootstock sends out runners which will flower the next year. In the *Vomero* Garden they are cultivated in the full sun, and also in half shade.—WILLIAM MULLER.

The British Gardeners' Association.—The Bournemouth, Parkstone, Wimborne, and Highcliffe Gardeners' Associations held a special meeting in the Bournemouth Arcade on Tuesday, the 15th inst., to hear an address upon the objects of the British Gardeners' Association, by Mr. W. Watson, the hon. secretary. The chair was taken by Mr. Stevenson, superintendent of the Bournemouth Public Gardens, and about 100 gardeners were present, some having come a distance of fifteen miles by brake to attend the meeting. Mr. Watson sketched the history of the association up to the election of the present committee of selection, whose duties were, he said, limited to the

selection from applicants for membership of all who fulfil the conditions stated in the prospectus until 500 members have been elected, and in the meantime to take such steps as may appear desirable to ensure the success of the movement. One of these was to hold meetings of gardeners in centres throughout the country for the purpose of placing the aims and objects of the association clearly before those whose interests it was intended to promote. He then read the prospectus and explained those portions of it which had been misunderstood in some quarters, insisting on the necessity of limiting membership to those who were qualified by training and experience, and pointing out that the executive council of the association would be elected by the first 500 members who joined. It would then be within their powers to reconsider the existing rules and to make such additions and modifications as might appear desirable to meet the views of all sections. Adverting to the scale of wages, hours of labour, and other conditions of employment recommended in the prospectus, Mr. Watson said that a standard rate of pay, &c., was now fixed for all important industries in this country, and he saw no great difficulty



THE REV. PROFESSOR HENSLOW, M.A., V.M.H.

in the way of fixing an acceptable scale for gardeners. When gardeners had got all that the prospectus recommended they would still be a hard-worked and moderately paid body of men. He believed that it would now be considered nothing short of a national calamity if the organisations which regulated the conditions of employment in the great industries were to cease operations. A resolution to form a Bournemouth branch of the British Gardeners' Association was carried by a two-thirds majority.

Eupatorium violaceum.—For the autumn this is one of the best plants that we have, and particularly as the sky blue colour is very rare at this season. It is a plant for every garden. The culture is similar to that of the *Chrysanthemum*, and if well grown it forms a good pot plant. The colour is light sky blue, and the flowers last fresh a long time when cut.—W. MULLER.

Apple Lady Sudeley.—With me this Apple is now a success, since it became thoroughly established—ten years planted. I grow twenty bush trees about 10 feet high. The main branches are kept thin and the summer growth low. A full exposure of the buds is necessary.—E. M.

Mr. William Bateson, F.R.S.—The Darwin medal of the Royal Society has been awarded to Mr. William Bateson, F.R.S., for his contributions to the theory of organic evolution by his researches on variation in heredity.

Winter Carnation Dr. W. G. Grace.—Some blooms of this variety have just come to hand from Mr. W. E. Boyes, Belvoir Street, Leicester. The flowers are large, full, of a bright scarlet-crimson colour, and highly fragrant; it is a strong grower, and appears to bloom with great freedom. Mr. Boyes has for a few years past been a careful raiser of winter-flowering Carnations, striving to obtain a vigorous growth in combination with high colour, quality of petal, freedom of bloom, and rich fragrance.—R. D.

Lettuce Continuity.—This is one of the most long-standing of summer Lettuces, and as a seed grower said of it during the past summer it will not bolt to seed. It grows to a good size, has a large solid heart, green, tinted with brown, and it is a great favourite with many gardeners for salading purposes. It is curious to note that the leaves of Cabbage Lettuces are much crisped; indeed, there are few smooth-leaved varieties, but there is scarcely a Cos Lettuce that has the leaves assuming the crisped form. There appears to exist a dislike to Lettuces which have their leaves tinted with yellow, one bearing the name of Buttercup has probably the greatest amount of yellow in its leaves. This is also a Cabbage variety.—R. D.

The newer Potatoes.—I have noticed with interest the letters that have appeared in THE GARDEN lately about the newer varieties of Potatoes. Last March I planted 3½ lb. of Evergood, some on the 18th and the remainder a week or two later, by way of an experiment. Those planted on the earlier date yielded a much heavier crop than those planted on the later date. From about 1 lb. planted on the 18th I had about 3 lb. or more of good sized tubers. From the 2½ lb. planted later I had about 4 lb. of tubers; these were not so large as the earlier ones. As to their eating qualities, I have always found them excellent, being white and floury. I may mention that the soil here is light, dry, and gravelly.—Miss A. SMALLPEICE, *Cross Lanes, Guildford.*

A note on Carnations.—At the Royal Botanic Society's show on the 9th inst., Messrs. J. Ambrose and Son, of Cheshuot, staged a large and interesting group of plants and flowers, and some fine varieties of Carnations were included. Of these Fascination, soft flesh pink, large full flowers, very fragrant, was particularly worthy of note, and gained a certificate of merit. Beauty was another very sweet scented variety, the large, full flowers with fringed petals stood up well on stiff stems, and were of the purest white; Floradora, rose-pink; Chivalry, deep crimson, were also good, and all had the characteristics of the American varieties, namely, strong stems, good perfume, and fringed flowers. Vulcan, bright scarlet, was good but devoid of scent, and in habit more like other English varieties.—A. H.

Lily bulbs from Japan.—Doubts have been more than once expressed concerning the supply of Lily bulbs this season from Japan, but up to the present the lamentable war in which that country is engaged does not appear to have had any particular influence on the crop and its harvesting, for we have had considerable numbers sent over, and no fault could be found with their general condition. On the 26th ult. a moderate consignment was disposed of at Stevens's rooms. It consisted entirely of *Lilium longiflorum*, and the bulbs were in good condition, while there was a brisk demand for them. On the 10th inst. Messrs. Protheroe and Morris had a large quantity to dispose of, the bulbs of *L. longiflorum* and its varieties alone amounting to nearly 500,000, while over 50,000 bulbs of *L. auratum* were also sold. Many of the *L. longiflorum* bulbs were bought

by the large wholesale dealers, and it is very probable a goodly proportion of them are destined for retarding purposes, for which this Lily is so well suited. It is always the first to reach here in large quantities from Japan, as the growth is completed earlier than that of *L. auratum* or *L. apicatum*, which three species form the bulk of the Japanese Lilies that come to this country. The bulbs of *L. auratum* sold on the 10th inst. were not so fine as those which we may reasonably expect later on, for they presented the appearance of having been lifted somewhat prematurely. At all events, there did not appear to be the least difficulty in disposing of over 2,700 cases of different Lilies on that one day.—H. P.

Chrysanthemums at Arundel House, Dumfries.—There is generally an excellent display of Chrysanthemums in the gardens of Arundel House, Maxwelltown, Dumfries, the residence of Mr. John Primrose, and this year the flowers are quite up to the high average of former years, and many excellent large blooms might be exhibited. Among the best this year have been Mme. P. Radaelli, Lady Crawshaw, Bessie Godfrey, W. Seward, Guy Hamilton, Lady Violet Beaumont, Nellie Pickett, Jessie Cottie, Mme. Georges Bruant, Scottish Chief, Lord Ludlow, and Vivian Morel. Mr. J. Allan, Mr. Primrose's gardener, is a believer in firm potting, and is extremely successful in securing dwarf plants, clothed with foliage down to the pot, and splendid flowers of exhibition standard. A number of small-flowered varieties are also cultivated for decorative effect.

New Apples recently shown by Mr. Ross.—Those who saw the results of the efforts of one man, after many years of patient labour and care, would thoroughly agree with the honour bestowed by the Royal Horticultural Society, the fruit committee awarding the Hogg Memorial Medal, which is only given on rare occasions, and for special fruit culture. My note on the above will necessarily be brief, as the interesting account of Welford Park Gardens on page 309, and the pleasing account of Mr. Ross's good work, leave little room for further remarks. I more refer to the interesting exhibit at Westminster on the 1st inst. There were eighteen distinct varieties, and though some were naturally much better than others, so many were really good that it must have been a gala day for Mr. Ross, who has done so much to improve hardy fruit, and who has raised such varieties as Charles Ross, Rival, Welford Park Nonsuch, Atalanta, and The Houblon, with others that will in time become standard dessert and cooking varieties. The latest addition is Hector MacDonald, and Mr. Ross thinks this will be one of his best seedlings. It is a fruit of good appearance and quality. It bears well, and should become a great favourite. It is rarely that a private gardener can see the results of his work as Mr. Ross has done, and though advanced in years, he is still quite as enthusiastic as he was forty years ago. We heartily congratulate him.—G. WYTHES.

Marguerite Carnations in November.—Carnations in November may sound rather out of season, but as they are out of doors it will not be denied, I am sure, that they are very welcome. They were very beautiful last week in a garden I had the pleasure of passing through. Stone pans filled with them made a delightful show even in mid-November. Undoubtedly both summer and autumn have been favourable for their growth and continued flowering, but it shows how valuable this annual is. The seed was sown in February under glass; the seedlings were transferred to pots when large enough, subsequently hardened off, and finally placed pretty closely together in the stone vases and pans. It is no exaggeration to say that a few days ago these plants were bearing hundreds of flowers, and they had been in bloom since the beginning of August. The colours come fairly true from seed. The scarlet, purple, and white appeared to be particularly good; the two former were rich, distinct colours. They were most effective as seen on the stone balustrade in front of the house, and nothing could well be more attractive so late in the year, when most plants suitable for vase decoration are

over. I should like also to mention what a good plant for vases outdoors in late autumn *Salvia splendens* is, and how very bright and welcome in the flower garden.—Y. Z.

The value of Alyth Strawberries in 1904.—The returns for the season of 1904 having now been received, the secretary and treasurer of the Alyth Fruit Growers' Association, Mr. A. M. Ferguson, has remitted to the members cheques for their respective shares of the returns. The consignees of the Strawberries paid carriage, and the net rate paid to the members, after deduction of all expenses, is £31 19s. 7d. per ton.

"Evolution."—At the usual lecture in Broughty Ferry, under the Horticultural Association and Technical Education, on the 10th inst., the lecturer was Mr. David Storrie, F.R.H.S., of the firm of Messrs. Storrie and Storrie, Dundee and Glencarse. Mr. Storrie chose for his subject "Evolution," one which he treated in a thoroughly competent and instructive manner. Both the vegetable and animal kingdoms were included in Mr. Storrie's lecture, which was illustrated by a series of lantern slides. Mr. James Slater, president of the Horticultural Association, presided over a large and deeply interested audience. Mr. Storrie was warmly thanked.

Russelia juncea.—This *Russelia* is a very pretty and graceful flowering plant, which serves to render the stove or intermediate house gay with its bright coloured blossoms during the latter part of the summer and well on into the autumn; indeed, sometimes until winter. It belongs to the natural order Scrophulariaceae, and is therefore a near ally of the Pentstemon and *Calceolaria*, but the general aspect of the plant would in no way suggest this, for the branches are slender and Rush-like, while the small narrow leaves are few in number. The flowers, which are borne freely along the slender pendulous shoots, are individually about 1 inch long, tube-shaped, and bright scarlet in colour. This *Russelia* is a native of Mexico, from where it was introduced in 1833. It needs a fairly light soil, and will thrive in a mixture of equal parts of loam and peat or leaf-mould, with a liberal sprinkling of sand. As a specimen plant in a pot it is seen to great advantage when a few of the principal shoots are each secured to a neat stake, and the others allowed to dispose themselves at will, the appearance of the plant when at its best then suggesting a floral fountain. It may, besides this, be trained to a rafter in a small structure, as then the pendulous shoots hang down like a living fringe, while it is also suited for growing in a suspended basket. A second species (*R. sarmentosa*) is more of a climbing habit, and M. Lemoine of Nancy has raised two or three hybrids between this species and that above-mentioned.—T.

Chrysanthemums at the Royal Botanic Society's Gardens.—Although exhibitors were few at the show on the 9th the conservatory and corridor were bright with Chrysanthemums grown in the gardens. All the various types were well represented, some of the singles being particularly attractive. Ladysmith, pink, both in masses and dotted about was very pretty; Mary Anderson, white with a faint blush tint—good plants of this placed about among foliage plants were very pleasing; Miss Edith Pagram, rose-pink; Miss Annie Holden, yellow; and many others were worthy of note. Among the Japanese sorts the flowers were not of great size, but the colours were bright and varied. Mathew Hodgson, bright red, with a yellow shading, one of the very best for decorative work; Kimberley, bright yellow, was flowering freely; Mrs. Barkley, though often seen with immense blooms, is equally pretty under moderate treatment, and flowers freely. A whole host of pretty things might be enumerated. The plants grown this season number upwards of 3,000. It is a new departure for the society to grow so many, and they certainly add much to the attractiveness of the large conservatory.—H.

Pear Beurre Alexandre Lucas.—This handsome Pear is less grown than its merits deserve. Few fruits that have been introduced promise better in our light soil; indeed, in this respect it more resembles Beurré Diel, as it rarely fails to crop. In appearance it is not unlike Beurré

Diel, but a little longer, has a lighter skin, and is of very good quality. The fruits are much perfumed, melting, very juicy, and of delicious flavour. When grown on the Quince stock it fruits freely, and does well as a bush or pyramid. Cordon trees bear excellent fruit; indeed, I think this mode of culture good for this variety, as it gives such handsome produce. I am not much in favour of the very large Pears, such as Pitmaston, for dessert; the one named does not come so large as the Pitmaston. Even when allowed to bear freely the fruits are not so large, but grown as a bush they are very handsome, the tree grows freely, and is worth space in all gardens where good Pears are required. As an exhibition fruit it is much liked; its season is November, but in the north I have had this variety good well into December when gathered late and given cool storage. It is well worth a wall where a late supply is required.—G. W. S.

Salvia Horminum.—The note on page 335 from D. S. Fish reminds me how very beautiful this plant was in a Worcestershire garden that I visited recently. Mr. Fish writes: "The typical *Salvia Horminum* has purple bracts, but a form exists with red ones, and in another they are white." Numbers of beds were filled with plants grown as the type, but the bracts showed great variation in colour. Some were purple, others quite blue, and some were white. Probably if I had looked more closely I should have found some that were red or reddish. Even on the same stem the colour of the bracts varied from deep purple to light purple, and also to blue. Nothing is more effective in the flower garden at this time of year; the colouring is bright, and also unusual, and together with the pretty grey leaves makes a charming picture. It may not be generally known that by cutting back the plants in early summer stronger growths are produced that will be in full beauty at a later date than if the stems are allowed to develop unchecked. This method is worth practising, even if only to provide a succession of the beautiful bracts. The difference in vigour between the growth of plants not cut back and those which were is surprising.—Y. Z.

Rust on Clivias.—In THE GARDEN of the 12th inst. you replied in your "Answer to Correspondents" column to a query about rust on *Clivias*, and stated that the probable cause was an error in culture. On Thursday, the 10th inst., Mr. Rogers, gardener to Mrs. Wrigley, Bridge Hall, Bury, read a paper before the Bury Horticultural Society on

"Spring Flowering Plants," during the course of which he mentioned *Clivias*, and referred to rust. He said that when he first observed rust he sent a specimen to Messrs. Kerr, Liverpool, and to the Scientific Society. The former stated the cause to be an error in culture, and the latter could not give the reason of its appearance. Mr. Rogers was not satisfied, and set about finding out the cause himself. He eventually found some very small insects (the name of which he did not give) which were only visible under the microscope or a very powerful lens. After trying many insecticides, but without effect, he decided to use Fowler's Gardener's Insecticide, which was the only one that would destroy the troublesome pest. He said the insecticide was to be applied to the crown of the plants and the axils of the leaves. This may be of use to your querist, and perhaps other readers.—RALPH LANDLESS, Bury.

SOUTH AFRICAN PLANTS.

THOSE who have been trying to acclimatise South African plants out of doors could hardly have had a better season for getting them established. In this garden, however, the growth if anything has been too exuberant, especially of late, and whether such succulent things as the Transvaal Daisy and perennial species of *Arctotis* will get through the sharp winter which is predicted is another question. Throughout the dry weeks of summer, until the welcome rains came at the end of August, all the South African Daisies, including *Mesembryanthemums*, made growth slowly, but developed quantities of buds and flowers. During the last two months, on the contrary, the bushes have spread enormously, and now look too soft to be altogether satisfactory. The Transvaal Daisy (*Dimorphotheca Echlonis*) is still (November 3) covered with buds, which will scarcely have time to open. The pure white of its ray florets and the gem-like blue of the disc form a striking contrast to the dark shaded underside of the petals, and it is a very noticeable and charming plant. One never ceases to regret that, in common with all the South African composites, it has the habit of early closing. Cuttings strike with the same ease and in the same way as a *Pelargonium*—in sunshine. This is pre-eminently the case also with the different species of *Arctotis*. *A. aspera* has been a little disappointing this year, though not from any fault of its own. It was set too near the Transvaal Daisy, and the warm creamy tint of its flowers has clashed somewhat with the snow-white of its neighbour. The crinkled grey-green leaves of this *Arctotis* are so fine that we grow it as a foliage plant for the winter in the cold greenhouse.

Small-rooted cuttings of *Mesembryanthemums* tucked into the driest part of a wall early in May have hung a curtain of rose-coloured and glistening white flowers in front of it, and these still open every sunny day. The question is whether it would be better to cut the trailing stems well back to the wall, where the root-tufts seem strong and happy, or to leave them alone and await the result. Damp is the enemy to be dreaded more even than frost, and it is specially desired to save these plants for a second season, when they ought to be worth seeing. A point will be gained if it can be proved that *Mesembryanthemums* may be successfully grown in sheltered open spots in Sussex, as well as on the warmer west coast.

Sutherlandia frutescens, from South African seed, has grown tall and strong, but was planted out rather too late and has shown no disposition to flower. Its scarlet lobster-claw flowers, not unlike a miniature *Clianthus*, are a familiar feature of the Veldt, and are followed by bladder-like pods like those of a *Colutea*. It seems to be useless in the case of this plant, whether grown outside or in a greenhouse, to try to interfere with Nature by pinching or cutting back to improve its shape. No treatment of the kind, apparently, will turn it into a bush, for it persists in preferring length to breadth. Its slight wand like growth is elegant, nevertheless, and in the spring the soft tops take root in pure sand with the greatest ease.

Oddly enough *Montbretias* have not flowered with the freedom they did in the wet season of last year. It may be that they have merely exhausted the soil and require a fresh site, but they have not been long in their present position. The best varieties are very beautiful, but almost all are terribly encroaching.

The length of time during which bulbs will remain dormant is an interesting point, but one which resists calculation. Bulbs of *Belladonna Lilies* planted in June under a warm wall have shown no sign as yet of starting, but are sound and safe. It is all the better in this particular case that the root-fibres should get thoroughly established before the leaves begin to show. In and out amongst the *Belladonnas*, a quantity of home-saved seed of *Anomatheca cruenta* was scattered as soon as it was ripe. The seedlings have come up strongly, and it is hoped that these two South African bulbs will make themselves at home in the warm sheltered spot chosen for them.

These notes of the behaviour of a few South African plants during the past season may be of use to other growers who are interested in them.

Hastings. K. L. D.



THE DOUBLE WHITE COLCHICUM (*C. AUTUMNALE ALBUM PLENUM*).

NOTES ON LILIES.

LILIUM TESTACEUM.

THE possibility of this Lily being a native of Europe, which is discussed by your correspondent S. G. Reid, page 322, reminds one how little we know of the origin or early history of one of the most beautiful members of the genus. It is generally regarded as a hybrid between *L. candidum* and *L. chalcedonicum*, but of this we do not seem to have any authentic particulars. The most complete account of the early history of *Lilium testaceum* that has come under my notice occurs in a book of 122 pages, entitled "Monographie, Historique et Littéraire des Lis, par Fr. de Cannart d'Hamale, President de la fédération des Sociétés d'Horticulture de Belgique, &c," printed at Malines, 1870. Somewhat curtailed it reads as follows: "There is also another Lily with recurved petals, concerning the origin of which we have but a vague idea, but which, nevertheless, appears to be Japanese, viz., *Lilium testaceum* of Lindley (the Nankeen Lily). It was first discovered by M. Fr. Ad. Haage, jun., of Erfurt, accidentally in a large consignment of Martagons, which he had received from Holland in 1836, and with which it had been mixed. The plant was introduced into Belgium by L. Van Houtte, of Ghent, who had received a case full of it from M. Von Weissenborn, of Erfurt, in exchange for some Fuchsias. This exchange was made in 1840 or 1841, at which time there is no question that of this unknown Lily three persons of Lille in France each possessed an offset. One only of these offsets chanced to flower, at Esquermies-lez-Lille, and showed an umbel of pendant blossoms, with petals reflexed like the Martagoos, but larger, and of a beautiful nankeen colour slightly tinged with rose, and dotted with a deeper tint at the base. The bright orange-coloured stamens served to add to the beauty of the flower. M. Van Houtte, who happened to be at Lille, was fortunate enough to see this splendid novelty. He eventually received from M. Von Weissenborn an order for Fuchsias, with a postscript in the following terms: 'If by any chance you want the nankeen-coloured Lily I have a quantity at your service.'

"M. Van Houtte did not think twice about it, and seized with avidity the good fortune offered to him. He accepted the exchange, and soon became the possessor of a case more than a yard square full of Nankeen Lilies of all sizes, the largest bulbs measuring more than a foot in circumference. This news soon spread to Lille, and there caused much talk and great disappointment when the possessors of the three offsets were convinced that the Lily of which M. Van Houtte had become the owner was the same as those which they guarded so jealously. The Nankeen Lily passed from Belgium to England, where it flowered for the first time in 1842 with Messrs. Rollisson. It was figured and described in the *Botanical Register* by Dr. Lindley in 1843, under the name of *L. testaceum*. Dr. Kuntze, of Halle, had described it as *L. isabellinum*, and it also bore the name of *L. excelsum* among gardeners. M. Rinz Senior, a nurseryman at Frankfurt, and another gardener at Leipzig, claimed to recognise in it an old friend which they had cultivated in their younger days. This was evidently a mistake, for no mention of this Lily has been made in any work on botany or horticulture. We are more inclined to believe that it is of recent introduction, and that the Dutch received it from Japan, with which country they were in constant communication. But is it really a true species? Or is it not rather the product of the white Lily fertilised by one of the Pomponium section? The general appearance of the plant would lead one to suppose so."



COLCHICUM SPECIOSUM MAXIMUM.

Such is the early story of this Lily, which interested me greatly, and as many readers of THE GARDEN are, like myself, admirers of these beautiful plants, they too may be interested. H. P.

THE FLOWER GARDEN.

SOME GOOD COLCHICUMS.

MEADOW SAFFRONS or Colchicums are, together with the autumn-flowering Crocuses, distinctly the most valuable of our bulbous plants that brighten the concluding months of the year with their blossoms. The common Meadow Saffron (*Colchicum autumnale*), which bears single, narrow-petalled flowers of a pinkish purple tint, looks well in the grass, as indeed do all the members of this family, but the rarer species are too scarce for planting except in tilled ground. As the flowers are produced in the autumn and the leaves do not follow until the succeeding spring, the blossoms have the bare earth for a setting, which somewhat detracts from their appearance, and it is therefore advisable to surface the ground in which they are planted with some dwarf, loosely-growing subject. I say loosely-growing, because I have found that a particularly close-growing carpeting plant, such as *Arenaria balearica*, is injurious to them.

Some time since I surfaced colonies of several Colchicums with this *Arenaria*, lifting large patches of it and fitting the patches together above the groups of Meadow Saffrons, so that they were entirely covered with an unbroken mass of green. This was done immediately the flowers died down in the autumn. I paid no attention to them in the spring, but, on looking at them in the summer, found that not a single Colchicum leaf had pierced through the carpet of *Arenaria*, but that a few had been produced around the edges of the green covering. I came to the conclusion that the

growth of the *Arenaria* was so close that it prevented the air from reaching the soil, and that this was the cause of the Colchicums failing to throw up foliage. I at once removed the *Arenaria*, but in the autumn the only flowers that were produced were a few where leaves had appeared round the edge of the *Arenaria*, in place of the many dozens that generally brightened the ground in the autumn. I have found the following species handsome and effective: *C. Bornmulleri*, very pale mauve-pink, height 10 inches, length of petal 3½ inches, breadth of petal 1½ inches. This is the earliest of the Colchicums, being at its best with me on September 5. *C. Sibthorpii*, a very pretty flower, light rose-pink, tessellated with darker markings, height 9 inches, length of petal 2¾ inches, breadth 1 inch; September 8. *C. speciosum*, pale rose-purple, height 9 inches, length of petal 3 inches, breadth 1 inch; September 10. There is a white variety of *C. speciosum* which is very beautiful, but which is at present too expensive for the majority to possess.

C. speciosum maximum.—This, in my opinion, is the finest of all the Colchicums. Though said to be a variety of *C. speciosum*, I am inclined to think it a distinct species, as its foliage does not appear until that of *C. speciosum* is fully developed. Its flowers resemble a port wine glass in shape, whereas those of the type are more like a sherry glass in contour, the increased spread of the former rendering the blossoms far more striking, while, as their petals are of greater consistency, the flowers retain their beauty for a considerably longer period. In colour it is deep rose-purple, this tint contrasting well with the white base of the cup, height 9 inches, length of petal 3 inches, breadth nearly 2 inches; September 30. This Colchicum is very rarely met with, and I only know one nurseryman who catalogues it. *C. autumnale album plenum*.—Height 6 inches, pure white, flowers very double, about 5 inches across, petals long and strap-shaped, and half an inch in breadth.

Each bulb of this variety produces numerous flowers, so that a group of two or three dozen plants will bear 100 or more blossoms. Though a comparatively old introduction the plant is still scarce, bulbs being usually catalogued at 5s. each. The *Colchicums* named are all distinct, and form a handsome and representative selection.
S. W. FITZHERBERT.

SOME INTERESTING ANNUALS.

AMONG the numerous annuals which are cultivated in the open we would call attention to those mentioned below :

AGERATUM MEXICANUM (Imperial Dwarf).—The *Ageratums*, with their numerous little blue heads of flower, which last throughout the summer, are fairly well known. The dwarf variety of which we are speaking has not only the merit of being dwarf, but also of coming true from seed. Hitherto it has been necessary to preserve a quantity of dwarf plants throughout the winter in order to take cuttings from them in the spring, for seeds of the dwarf [forms] produced plants of very unequal

innumerable lilac-purple flowers. The *Callirhoës* are seldom met with, yet they are beautiful and very easy to grow. *C. pedata* and *C. verticillata* with their bright and brilliant red flowers also deserve to be mentioned. They should be sown under glass or in a cool greenhouse about the end of March, and may be planted out from the beginning of May.

DIASCEA BARBERÆ.—This is another very interesting yet scarcely known annual. It is an elegant plant allied to the Snapdragons and Toadflax. It was introduced a few years ago from the south of Africa. It is very floriferous, and its flowers last a long time; they are of a rich red-brown colour. It is probable that, like the Snapdragon, this pretty flower would be improved in the hands of the hybridist, and that it would give birth to varieties of diverse and happy combinations of colours. Sow in March and April under glass, and plant out in a sunny spot in May.

ESCHSCHOLTZIA CALIFORNICA ERECTA COMPACTA.—*E. californica* of to-day is dwarfer than it used to be. The flowers are upright, and are borne on stout stems. All the *Eschscholtzias* are annuals

to be grown everywhere; *Apollo* and *nanus* compactus, the dwarf and tufted forms; *Diadem*, pale yellow, with discs almost black, and its sub-variety with double flowers; *Stella*, golden-yellow, the best of all; and *Orion*, a most brilliant yellow. They may be sown in the open or scattered broadcast among groups of shrubs in April and May.—**JULES BURVENICH**, in *Le Bulletin d'Arboriculture*.

TREES AND SHRUBS.

BEAUTIFUL DECIDUOUS TREES FOR SMALL GARDENS.

AS the planting season has again come round it may not be out of place to call attention to the above subject, especially as many of the choicer deciduous trees seem as yet comparatively little known. They are more adapted, however, to the requirements of small places than our large native trees, and it is matter for regret that this fact is not more recognised in the laying out of such

gardens, for excellent as they are in their proper place, it is neither right from a landscape point of view nor in any way convenient to have pleasant little nooks dwarfed and smothered by huge Oaks, Elms, or Beeches.

Magnolia tripetala is a capital subject as a background for a small lawn; it will attain in a fairly sheltered situation a height of from 20 feet to 30 feet. The flower is larger than that of *grandiflora*, but looser and the petals less firm and solid. With the exception of *M. macrophylla*, I suppose *tripetala* is quite unique in foliage, the individual leaves often attaining a length of 16 inches. The *Virginian Bay* (*Laurus Sassafras*) is grand as an isolated specimen; it is about 30 feet high, and forms quite a regular pyramid with very dense, handsome foliage that is slightly scented. The *Maidenhair Tree* is perhaps better known than either of the foregoing, but is not planted so much as it deserves to be, for it must be borne in mind that, like the large-leaved *Magnolias*, its foliage is, so far as tree life is concerned, practically unique. I think the *Siberian Crab* (*Pyrus prunifolia*) a very handsome tree, and as it almost invariably grows into a shapely specimen, it can, like the *Virginian Bay*, be highly recommended; so also can the *Apple-shaped Service* and the *Paulownia*. Descending a little in the scale so far as height is concerned, we come to a number of interesting subjects that might with advantage be used in lieu of the countless *Laburnums*, *Almonds*, *Thorns*, &c., that meet one at every turn. I fancy *Benthamia fragifera* might be relied on to form a handsome tree on a small scale. From occasional notes from the south-west of England it would appear to attain there considerable dimensions, and the few plants we have are very fair specimens, notwithstanding the fact that they have been seriously handicapped by poor hungry soil and the close proximity of common things of vigorous habit. The wood of this tree is excessively hard. I had occasion to remove a few branches last winter, and found, to use a common expression, it was like cutting at stone.

Magnolia glauca is a handsome little tree or large shrub, and the flower is pleasing with its faint Tea Rose-like perfume. *Asimina triloba* is not often met with, but deserves a place in all collections, if it were only for its very singular flowers. The *Fringe Tree* (*Chienanthus virginicus*) is quite a little tree with us, and attracts general attention when covered with its delicate sprays of bloom. Two handsome trees that may be associated with the above named to give variety of foliage are *Corylus purpurea* (the purple-leaved Nut) and *Prunus Pissardi*. Among the trees of larger growth mentioned at the commencement of



COLCHICUM BORNMULLERI.

growth. *Ageratum mexicanum* is therefore a great improvement. All that is necessary is to sow seed in March in pans in a forcing frame or greenhouse, and to prick out the seedlings in April into small pots for the final planting out in May. This variety, with flowers of a clear, pleasant blue, has already given rise to a sub-variety with white flowers, which is also worthy of commendation.

AMARANTUS CAUDATUS.—This is a very old annual, which was much better known in times past. It is gradually disappearing from gardens, although it is as beautiful as it is peculiar and easy to grow. The inflorescences, commonly called "Fox-tails," last a long time, and have a very charming effect in front of masses of greenery. We should like also to call attention to another—*Amarantus sanguineus*—which has long inflorescences of a deep blood-red. Sow the seed where the plants are to flower in April and May. Although the plant succeeds even in the poorest soil, a rich soil improves the size and duration of the flowering stem.

CALLIRHOË LINEARILoba.—This is a charming dwarf malvaceous plant with small foliage, bearing

belonging to the Poppy order, and are of much interest for several reasons. In the first place, they can be safely sown in the open air from the second fortnight in April; in the second, they will succeed anywhere; and thirdly, their flowers last long and are striking and brilliant. There are single and double, pure white, pale carmine, pink, red, orange, &c. The most remarkable of them all is undoubtedly *E. Mandarin*, which has large and beautiful bright orange flowers.

GLAUCIUM FLAVUM TRICOLOR.—This is a species of the same family as the *Eschscholtzia*. It is accommodating as to soil and temperature, and is also most ornamental. It should be sown in the open in April. Its glaucous foliage is very pleasing from the first, and is in striking contrast with the large and vivid orange-red flowers.

HELIANTHUS CUCUMERIFOLIUS (Orion).—These little Sunflowers have become very popular, and the skilled hybridist has effected several improvements in the type already distinguished by its beautiful yellow, long-stemmed flowers, so well adapted for vases. The following varieties deserve

these notes I might have included the *Cornus brachyypoda*. This is comparatively new, but ought to prove a valuable addition to our small ornamental trees. I do not claim for the above short list of some eighteen or twenty sorts that they are greatly superior to many others; they are simply a few that have come under my personal notice, and can be relied on to give satisfaction in the planting of small pleasure grounds. E.

TREES & SHRUBS WITH COLOURED FOLIAGE.

(Continued from page 341.)

In the following list most of the shrubs which have any just qualification to be placed under this heading are included.

ACANTHOPANAX SPECIOSUM VAR. VARIEGATUM.—This is a bushy Araliad, with small, golden variegated leaves; its culture outdoors should be confined to the warmer parts of the country.

ACER.—In this genus several very useful plants are to be found, the following being a selection of the best. *A. campestre* var. *pendulum* *foliis variegatis* and *A. campestre* *variegatum* are both white variegated forms of our common Maple. *A. dasycarpum* var. *foliis albo-variegatis* is a white variegated-leaved form of the silver Maple; its leaves are very pretty when they first develop, but get burnt before summer has far advanced. *A. d.* var. *lutescens* has yellowish leaves, the colour being most marked when the leaves are young. *A. japonicum* var. *aureum* makes a bush with golden leaves, while *A. j.* var. *rubrum* has deep red leaves. *A. Negundo* furnishes several very useful varieties which may be grown either as standards or bushes. *A. N.* var. *foliis marginatis aureis* has pretty golden leaves, while *A. N.* *variegatum*, with white variegated leaves, is a well-known plant. *A. palmatum* brings us to a species composed of a large number of pretty foliated varieties, which are collectively called Japanese Maples. Very many of these are seen at their best when grown under glass; but the varieties *A. p. septemlobum sanguineum* and *atropurpureum*, which have deep red leaves, do very well out of doors. *A. platanoides* var. *marginatum album* is a variety of the Norway Maple, with green and cream-coloured leaves, the cream predominating. It is very pretty early in the season, but gets burnt in bright sun. *A. Pseudoplatanus* var. *atropurpureum* has purplish leaves. *A. P. flavo marginatum* has golden and green variegated leaves; this is commonly called the Corestorphine Plane. *A. P. foliis albo-variegatis* has leaves striped with whitish lines, while *A. P.* var. *Prinz Handjery* has pretty golden variegated leaves.

(To be continued.)

THE ROSE GARDEN.

EXHIBITION ROSES—ANALYSIS 1897—1904.

THESE are no statistics relating to exhibition Roses that create anything like the interest that attaches to the appearance every year of Mr. Mawley's Rose analysis, and which has recently been published in the columns of your contemporary the *Journal of Horticulture*. Issued by the esteemed secretary of the National Rose Society, they must entail many hours of hard work, and Rose lovers cannot be too grateful to him for undertaking such a task. It is only one more debt added to the many they already owe him, for the analysis solves, as nearly as possible, that all-important question for the old and young exhibitors alike, namely, which varieties to grow and how many of each he should select. I say as nearly as possible, because all statistics require careful consideration, and must be used with discretion and adapted to the individual requirements of each particular case; but, given these, I can conceive nothing more useful to exhibitors. If they are old hands at the game, with a collection of Roses that has served them well in the

past, they know the absolute necessity of keeping it up to date, and if they are just starting, here they have all the information they require for planting their Rose garden with varieties that should enable them to compete with the best.

It may be necessary for the benefit of those perusing this analysis for the first time to explain the methods which have been employed for many years past in compiling it. Since 1886 the name of every Rose in all the prize stands at the metropolitan exhibition of the National Rose Society has been taken down and the result afterwards tabulated. The average number of blooms thus dealt with annually has been about 1,800. In the complete table for the whole eighteen years can be found the number of times any variety was staged at all or any of those exhibitions. The present table deals with the last eight years only, as that number of years is sufficient to give the most trustworthy results, and in order to include therein the new Roses, and particularly those of most recent introduction, such as Frau Karl Druschki, Alice Lindsell, Florence Pemberton, &c., their place in the table is arrived at by taking the

number of times they have been exhibited in the 1904 show only. Combining, as the analysis does, the fruit of the last eight years, one arrives at results that may be expected from an average season; 1903, for example, was an extremely backward year for Roses, and the date of the metropolitan exhibition was unusually early, while this year the society was more fortunate, and the season was neither late nor early. The date just escaped being too late, with the result that the show for 1904 was a great success. Mr. Mawley, and none should know as well as he, claimed for it that it was the finest Rose show ever held. Thus the early and late seasons balance one another to a certain extent, but of course it is the midseason Rose that would probably be shown in a late as well as an early season that stands the best chance and comes out best in the long run. I have to thank both Mr. Mawley and the editor of the *Journal of Horticulture* for their courteous permission to make use of the article that appeared in that paper on the 3rd inst., and to those of your readers who are especially interested I would strongly recommend them to refer to the original notes.

HYBRID PERPETUALS AND HYBRID TEAS.

(TABLE I.)

Position in Present Analysis.	Average Number of Times Shown.	No. of Times Shown in 1904.	Name.	Date of Introduction.	Raiser's or Introducer's Name.	Colour.
*1	53.0	53	Mildred Grant, H.T.	1901	A. Dickson and Sons	Ivory-white, shaded pink
2	50.0	54	Bessie Brown, H.T.	1891	A. Dickson and Sons	Creamy white
3	43.9	45	Mrs. John Laing	1887	Bennett	Rosy pink
*4	43.0	43	Frau Karl Druschki	1900	Lambert	Pure white
5	38.0	30	Caroline Testout, H.T.	1890	Pernet-Ducher	Light salmon-pink
6	37.9	42	Ulrich Bunner	1881	Levet	Cherry red
7	32.7	32	Kaiserin Augusta Victoria, H.T.	1891	Lambert and Reiter	Cream, shaded lemon
8	32.7	31	Marquise Lita, H.T.	1893	Pernet-Ducher	Carmine-rose, bright centre
9	32.7	21	Mrs. W. J. Grant, H.T.	1895	A. Dickson and Sons	Bright rosy pink
10	31.4	16	La France, H.T.	1867	Guillot	Silvery rose, shaded lilac
11	31.0	13	Mrs. R. G. Sharman Crawford	1894	A. Dickson and Sons	Clear rosy pink
12	30.7	27	A. K. Williams	1877	Schwartz	Bright carmine-red
*13	26.0	26	Alice Lindsell, H.T.	1902	A. Dickson and Sons	Creamy white, pink centre
14	25.1	18	Gustave Piganeau	1889	Pernet-Ducher	Shaded carmine
15	23.0	28	Her Majesty	1885	Bennett	Pale rose
16	22.7	21	Sozanne M. Rodocanachi	1883	Lévéque	Glowing rose
17	22.1	3	Mme. Gabriel Luizet	1877	Liabaud	Light silvery pink
18	21.9	9	Captain Hayward	1893	Bennett	Scarlet-crimson
19	21.0	18	Horace Vernet	1866	Guillot	Scarlet-crimson, dark shaded
20	18.3	19	Helen Keller	1895	A. Dickson and Sons	Rosy cerise
*21	18.0	18	Lady Moyra Beauclerc, H.T.	1901	A. Dickson and Sons	Madder rose, with silvery reflex
22	18.0	20	Ulster	1899	A. Dickson and Sons	Salmon-pink
23	17.9	11	White Lady, H.T.	1890	W. Paul and Son	Creamy white
24	17.2	16	Marie Baumann	1863	Baumann	Soft carmine-red
25	15.9	13	Prince Arthur	1875	B. R. Cant	Bright crimson
26	14.7	11	Duppy Jamin	1868	Jamin	Bright cerise
27	14.7	0	Margaret Dickson	1891	A. Dickson and Sons	Ivory white
28	14.6	19	Alfred Colomb	1865	Lacharme	Bright carmine-red
29	14.1	7	François Michelon	1871	Levet	Deep rose, reverse silvery
30	14.0	12	Charles Lefebvre	1861	Lacharme	Purplish crimson
31	14.3	13	Killarney, H.T.	1898	A. Dickson and Sons	Pale pink, shaded white
32	13.0	19	Marchionessa of Londonderry	1893	A. Dickson and Sons	Ivory white
33	12.5	6	Lady Mary Fitzwilliam, H.T.	1882	Bennett	Rosy flesh
*34	12.0	12	Duchess of Portland, H.T.	1901	A. Dickson and Sons	Pale sulphur yellow
35	11.5	17	Comte de Raimbaud	1868	Roland	Clear crimson
36	11.5	9	Duke of Wellington	1864	Granger	Bright shaded crimson
37	11.2	12	Countess of Caledon, H.T.	1897	A. Dickson and Sons	Carmine-rose
38	11.0	6	General Jacqueminot	1853	Roussel	Bright scarlet-crimson
*39	11.0	11	Gladys Harkness, H.T.	1900	A. Dickson and Sons	Deep salmon-pink, silvery reverse
40	10.7	7	Duke of Edinburgh	1858	Paul and Son	Scarlet-crimson
41	10.7	2	Marchioness of Downshire	1894	A. Dickson and Sons	Light pink, shaded rose
42	10.5	7	Earl of Dufferin	1887	A. Dickson and Sons	Dark crimson, shaded maroon
43	10.5	14	Fisher Holmes	1865	E. Verdier	Shaded crimson-scarlet
44	10.0	3	Etienne Levet	1871	Levet	Carmine-rose
45	9.8	12	Tom Wood	1896	A. Dickson and Sons	Brownish red
46	9.2	8	Victor Hugo	1884	Schwartz	Dazzling crimson, shaded
47	9.1	5	Marchioness of Dufferin	1891	A. Dickson and Sons	Pink
*48	9.0	9	Florence Pemberton, H.T.	1902	A. Dickson and Sons	Creamy white, tinted pink
49	8.2	9	Beauty of Waltham	1862	W. Paul and Sons	Rosy crimson
50	8.0	5	Dr. Aodry	1864	E. Verdier	Bright crimson
51	7.9	7	Xavier Olibo	1864	Lacharme	Dark velvety crimson
52	7.5	5	Duke of Teck	1880	Paul and Son	Light crimson-scarlet
53	6.9	0	Heinrich Schulteis	1882	Bennett	Pinkish rose
54	6.9	5	Louis Van Houtte	1869	Lacharme	Deep crimson, shaded maroon
55	6.8	5	Souvenir du President Carnot, H.T.	1895	Pernet-Ducher	Flesh, shaded white
56	6.5	1	E. Y. Teas	1874	E. Verdier	Bright red
57	6.4	4	Mme. Cadeau-Ramey, H.T.	1896	Pernet-Ducher	Rosy flesh, yellow base
58	6.2	8	Marie Verdier	1877	E. Verdier	Pure rose
59	6.1	4	Ferdinand de Lesseps	1869	E. Verdier	Shaded crimson
60	6.1	4	Mme. Eugene Verdier	1878	E. Verdier	Silvery rose
*61	6.0	6	Mamie, H.T.	1901	A. Dickson and Sons	Rose-carmine, yellow base
62	6.0	7	Papa Lambert	1899	Lambert	Pinkish rose
63	5.7	4	Duchess of Bedford	1879	Postans	Light scarlet-crimson
64	5.5	4	Le Havre	1871	Eude	Vermilion-red
65	5.4	2	Rev. A. Cheales	1896	Paul and Son	Pure lake, silvery white reverse
66	5.3	4	Exquisite, H.T.	1899	W. Paul and Son	Crimson
67	5.3	4	Mrs. Cocker	1899	Cocker	Pale pink
*68	5.0	5	Ben Cant	1902	B. R. Cant and Sons	Deep crimson

* New varieties, whose positions are dependent on their records for the 1904 show only.

Mr. Mawley's most interesting comments on this table are as follows:

"If we turn to the table of Hybrid Perpetuals and Hybrid Teas it will be noticed that Mildred Grant for the first time heads the list, having displaced Bessie Brown, which had held that proud position unchallenged for the previous two years. The new queen of this section is a very large and most beautiful Rose. Its petals are of great substance and ivory white in colour with pink shading. Unfortunately, like Bessie Brown, it must be regarded as more particularly an exhibitor's Rose. Bessie Brown, on account of the pendent habit of its blooms, and Mildred Grant on account of its moderate growth. For ordinary cultivation such vigorous varieties as the next four Roses on the list—Mrs. John Laing, Frau Karl Druschki, Caroline Testout, and Ulrich Brunner—are to be recommended, as they grow and thrive with only moderate care, and possess almost every good quality such Roses should possess. They have all well-shaped flowers, vigorous constitutions, make good growth, and flower in the autumn as well as in the summer.

"Since last year Gustave Piganeau, another moderate grower, and Her Majesty, which bears fine show flowers, but is very subject to mildew, no longer appear among the leading twelve varieties, their places having been taken by Mildred Grant and Frau Karl Druschki, two new candidates for honours. If we take the first twenty-four varieties in the table we shall find they have also lost two old favourites, Prince Arthur and Alfred Colomb, their substitutes this year being two new kinds, Alice Lindsell and Lady Moyra Beauclerc. These and other changes of a similar kind clearly show that not only among the small free-flowering Roses, known as 'garden' Roses, are great improvements taking place, but that the same thing is going on among the large-flowered or 'exhibition' Roses, as they are called, and more rapidly, too, than at any previous period. This surely is a matter for much congratulation, and no doubt in a great measure accounts for the steadily increasing interest taken in Roses and Rose culture throughout the length and breadth of the land.

"Among the established varieties only Ulrich Brunner, Her Majesty, Alfred Colomb, Marchioness of Londonderry, Comte de Raimbaud, and Fisher Holmes were unusually well represented at the last exhibition of the society. On the other hand, the following kinds have never before—and my reference tables go back eighteen years—been less numerous staged than on that occasion: Caroline Testout, Marquise Litta, Mrs. W. J. Grant, La France, Mrs. R. G. Sharman Crawford, Gustave Piganeau, Mme. Gabriel Luizet, Captain Hayward, and Margaret Dickson. Two causes, no doubt, combined to bring about the comparatively poor records of those varieties, viz., the later date at which the show was held this year, and the upward movement of the new Roses in the list.

"The continued onward and upward march of the Hybrid Teas is clearly indicated. Six years

ago there were only nine Hybrid Teas which found places in the table, last year there were eighteen, this year there were as many as twenty, seven of which appear among the leading twelve varieties. That the Hybrid Tea is still in its infancy is shown by the fact that there is not a single crimson (if we except Exquisite, nearly at the bottom of the table), maroon, yellow, or pure white Hybrid Tea on the list. These will all, no doubt, come in good time, but at present we have to be content that our five leading exhibition Roses should be either white or pink. Even if we take the first twelve varieties in the table, only three—Ulrich Brunner, Marquise Litta, and A. K. Williams—are any other colour.

"As many as fourteen new Roses—varieties sent out during the last five years—find places, and several very high places, in the list of Hybrid Perpetuals and Hybrid Teas. Of the five new sorts sent out in 1899, Bessie Brown takes the lead. It has fallen from the premier position since last year, but only to occupy the second place on the table. To show what a dependable exhibition Rose that fine creamy white variety is, it may be stated that at the last show it was rather more frequently staged than any other Hybrid Perpetual or Hybrid Tea. Ulster, distributed in the same year, has gained one place,

position in the analysis. Florence Pemberton, creamy white, tinted pink, sent out at the same time, secures a place at No. 48. Ben Cant, deep crimson, also a 1902 variety, just manages to come in at the end of the table. From an exhibitor's point of view, if from no other, the advances indicated by the above statements respecting the newer Roses must be regarded as very considerable.

"For instance, taking the leading new Rose of each year, we find the one sent out in 1899 at No. 2, that sent out in 1900 at No. 4, that sent out in 1901 at the head of the list, and that distributed in 1902 at No. 13. This, for five years, is an unequalled record, and it is a matter for further satisfaction that of the fourteen new Roses on the list, as many as twelve were raised in the British Isles, and no fewer than nine of them by a single firm, Messrs. A. Dickson and Sons, of Newtownards, Ireland. The only two new Roses of foreign introduction were sent out by Peter Lambert, of Trier, in Germany."

Mildred Grant's place at the head of the list comes rather as a surprise to me. One ought perhaps to point out that it is due to the fact that only its record for 1904 has been taken; as a matter of fact Bessie Brown was actually exhibited more times in 1904, but its record for the two other years being slightly lower tends to reduce its average. My own experience is that it is the more reliable Rose of the two, less liable to come split, and I think therefore it is still entitled to be called the leading exhibition Hybrid Tea. Next year will decide the point perhaps, but in any event it can only be a short-lived honour, for judging from what I saw at Messrs. Dickson's nurseries at Newtownards this summer there are many Roses coming along that will beat both of them. I do not, therefore, anticipate that either of them will hold the place of honour for so long a period as Mrs. John Laing, which headed this analysis for ten



THE POND AT TRELISSICK IN CORNWALL MARGINED WITH ARUM LILIES.

and now stands at No. 21. It is a very full, salmon-pink Rose of short upright growth; while Papa Lambert, pinkish rose in colour, rises from No. 65 to No. 61. On the other hand, Exquisite, crimson, and Mrs. Cocker, pale pink, have both fallen from No. 60 to No. 66. Frau Karl Druschki, a pure white Hybrid Perpetual, and one of the greatest acquisitions in that section for many years, whether regarded as an exhibitor's flower, or as a Rose for the decoration of the garden, is the most noteworthy of the varieties first introduced in 1900. Gladys Harkness, salmon-pink, of the same year, has risen from No. 66 to No. 38. Mildred Grant, ivory white, shaded pink, not only heads the list of 1901 Roses, but as before stated must now be regarded as the leading exhibition variety of the day. Lady Moyra Beauclerc, madder rose, on its first appearance in the list, takes up a very creditable position indeed at No. 21. Duchess of Portland, pale sulphur-yellow, also appears for the first time, and will be found at No. 34, while Mamie, rosy carmine, rises from No. 66 to No. 61. Alice Lindsell, creamy white, with pink centre, although only sent out in 1902, springs at once into a place at No. 13, and another year is certain to take a still more prominent

consecutive years. Increased competition tells its tale, even in the Rose lists. Grand flowers though Mildred Grant and Bessie Brown undoubtedly are, they will never be anything but exhibitor's flowers, and are not Roses for garden decoration such as the next four on the analysis, more especially perhaps Caroline Testout. I cut good flowers of this latter Rose only this week, mid-November.

Of Frau Karl Druschki one need only say that it has quite fulfilled its early promise of superseding all other white Hybrid Perpetuals, for a reference to the table will show that not a single flower of Margaret Dickson was exhibited in the winning boxes at the 1904 exhibition. It also promises to be quite one of the best of the autumn Roses. At a visit I made last month to one of our leading Rose nurseries I noticed that the rows of Frau Karl Druschki carried more flowers than any other Hybrid Perpetual, and nearly as many as Caroline Testout, Viscountess Folkestone, and La France.

Those two new Roses, Alice Lindsell and Lady Moyra Beauclerc—the latter an especial favourite of mine—have found their way into the first twenty-four, and next year will probably find them both in the first twelve, only its old average keeping

NEW AND RARE PLANTS.

CLEMATIS GRATA.

CLEMATIS GRATA was recently honoured by the Royal Horticultural Society with an award of merit when exhibited by Messrs. W. and J. Brown of Stamford and Peterborough. It is not a new plant, but a good one neglected, and the exhibitors are to be congratulated upon bringing it so prominently before the public. It is a pretty and graceful autumn-flowering plant, after the style of *C. Flammula*. The blossoms are very freely produced; the creamy white petals have a bluish tinge outside. This Clematis forms a strong-growing plant, and should be in every garden where autumn flowers are sought for. It is a native of the Himalaya, and under good culture will grow 12 feet high or more.

It is a pity that such beautiful Clematises as this are not planted more lavishly in English gardens. We find the same wearied



CLEMATIS GRATA.

Mrs. R. G. S. Crawford in the leading dozen, it being this year exhibited only half as many times as Alice Lindsell. Grand flower when you get it right, as *La France* is, I am afraid she will have to take a lower place next year. The late date of the show suited Her Majesty, Ulster, and Marchioness of Londonderry, but we shall undoubtedly see less of the first and last of this trip in future years. One can the less easily spare Mme. Gabriel Luizet.

In conclusion, one must call attention to the fact that the two Roses heading the list are both the production of Messrs. Alexander Dickson and Sons of Newtownards, an achievement never before attained by any firm since these records have been kept, and taking the first fifty Roses on the list I find that no fewer than nineteen of them come from this firm. I hope to deal with the analysis of the Teas and garden Roses next week.

HERBERT E. MOLYNEUX.

THE LILY POND AT TRELISSICK IN CORNWALL.

MANY views of this pond have been published, but the present one was taken from a different

point, showing a greater extent of the Arums. The pond is triangular in shape and about 1½ acres in extent, Arums forming a broad fringe along the whole base and parts of two sides, a length of over 900 feet. Early in June last the number of Arum flowers open at one time was estimated at 10,000. A fine mass of Tamarisk, *Acacia affinis*, *Gunnera manicata*, and Pampas Grass forms a bold background to the Arums, and outside are hybrid Nymphæas.

The only secret that I know of in connexion with Arums doing so well here is the fact that only a narrow embankment separates the fresh-water pond from the sea, so I attribute the credit to the influence of the Gulf Stream.

Trelissick, Truro.

WM. SANGWIN.

repetition of *Clematis Jackmani*, though this is charming enough, but *C. graveolens*, *C. grata*, and *C. paniculata*, to name only a few, have a grace and beauty that even *Jackmani* does not possess. With the greater facilities that now exist in many gardens in the shape of a pergola one would expect to find the rarer climbers more freely represented,

ROUND ABOUT A GARDEN.

A BUSY TIME FOR SPARROWS.

THIS is almost the busiest time for birds in the garden. It is the turn of their year, when they have all sorts of arrangements to make. The sparrows have for weeks been furnishing their winter sleeping places, and feathers from the fowl-yard are at a premium, while each chirper on the roof keeps one eye upon the toilette of the ducks, in case they may discard some of those fluffy underfeathers which upholster a nest so nicely. So the sparrows have plenty to talk about when they assemble in the shrubberies and all shout at once in the morning, though there is now very little of that vulgar chasing about in the bushes which is their method of love-making. This the sparrow postpones until early in the year, when the grey margins of his winter feathers will have worn off, and he will be able to hop around in spatchcocked attitudes before the lady of his choice, alternately exhibiting to her the contrasting greys and browns of his plumage behind and the jet-black bib that he will wear in front. At present his black bib is covered over with serviceable and seasonable grey, and he forages for feathers on his own account.

THE HEDGE-SPARROW AT HIS NOISIEST.

The hedge-sparrow, ordinarily the quietest and least obtrusive of birds, is at his noisiest now. Resuming song in autumn several weeks later than the robin, he seems filled with the idea that he must make up for lost time, and often sings his tweedling little song a score of times in quick succession, and almost without taking breath. Then he descends into the depths of the shubbery, and you hear his progress through it by the thin piping notes in which he protests against the presence of a hated rival on the premises. For this is the hedge-sparrow's mating time, and he is the most uxorious of little birds. A little later you will seldom see him or his wife when they are not pattering along the path together with their little ruddy feet, she all demurely brown, and he, a foot or so in advance, distinguished by the bluish-grey colour of his head. But now all is turmoil in the hedge-sparrow's life. Even if he has secured a mate, the event is so recent that rivals are still hanging around; and the great question of hunting grounds for the winter has not been properly decided. So there is a world of excitement in the hedge-sparrow's thin piping as he slips hurriedly through the shrubbery, nervously flicking his wings at every step.

BLACKBIRDS' QUARRELS.

The blackbirds seem to have got no further than the hedge-sparrows in the settlement of their winter boundaries, for great chases take place now and then when two or more yellow-billed warriors find themselves using the same lawn. But, unlike the hedge-sparrow, the blackbird does not yet think seriously of matrimony, and, when he does, it will be the hen birds that must do the quarrelling for mates, while each cock bird will watch the varying fortunes of the struggle for his affections as an interested spectator. In the spring, however, when another general rearrangement of bird population takes place, it will once more be the turn of the males to contend for nesting-sites. Thus, the rule of blackbirds' social ethics appears to be that the males must fight for the homes and the females for the husbands who own the homes. This, no doubt, has tended to the beautification of the male blackbird, for, other things being equal, it is

manifest that the handsomest husband would excite the keenest competition, and so get the best wives.

ROBIN AND TIT POLITICS.

Robin politics differ again, for they not only begin their arguments about hunting grounds for the winter earlier than the others, but also effect so complete a revolution in domestic matters that the males and the females fight separately, each on his or her own account, and often, as it would seem, against each other. Not until signs of spring are appearing on every hand will the robins begin to think of each other with any tender feelings. All through the winter months husband and wife meet less as strangers than as enemies. This is, no doubt, the reason why female robins sing almost as well, and as frequently, as the males, since they have equal need of a war-cry. Except that they fight less for their holdings, wrens seem to be like robins in the separation of the sexes in winter; and most of the tits also live in single independence then, strictly arranging their order of precedence at the bird-table by their fighting weight. Very pretty it is, as spring approaches, to see the change of manner which comes over them, and with what dignity each half-ounce warrior will induct his bride to the table and permit her to feed by his side.

THE FASHIONS OF FINCHES.

From watching the chaffinches in the garden one is apt to get confused ideas at first, because while one fine cock chaffinch will permit no other to approach his corner of the garden without battle, in another part you will often find a whole flock of chaffinches quietly feeding together. The difference is, of course, that the handsome autocrat is an old married bird with a home and wife of his own to defend, while the others are young birds of the year, which have wandered together from nobody knows where, but simply drift where food happens to be plentiful. Like human young people, too, before they are old enough to fall in love, these young chaffinches prefer to gather in crowds of their own sex. Among British finches this division of the community into old and young, and the further subdivision of the young into male and female, seem peculiar to the chaffinch, goldfinches apparently preferring to remain in family parties, and greenfinches assembling in promiscuous flocks for the winter, while bullfinches seem to break up into separate couples in autumn. These different arrangements of their lives make the birds always an interesting study in the garden at this season, when the leafless trees and bushes permit you to see so much more of their conduct, and when they have so many affairs to settle.

E. K. R.

GARDENING OF THE WEEK.

FLOWER GARDEN.

BEDDING PLANTS.

BEDDING plants are now in their winter quarters. Pelargoniums should be kept on the dry side, and as cool as possible. All decaying foliage should be frequently removed. Fuchsias which have lost their leaves may be stored in any out-of-the-way corner of the shed, and, of course, will not require to be watered for some time. Such plants as Heliotrope, Irisine, &c., which must be wintered in heat, should be placed as near the glass as possible, so as to keep them dwarf and sturdy. Whenever possible the lights should be entirely removed from the Calceolaria pits, or the mild weather will induce them to

start into growth, which would be soft and not fit to withstand any cold weather. Covering material must be kept at hand in readiness or a sudden frost may do a lot of damage to bedding plants in frames and unheated pits.

VERONICAS, HYDRANGEAS, &c.

Cuttings of these flowering shrubs, if firmly inserted in boxes of suitable soil and placed in a cold pit, will root during the winter, and a few small plants from the borders, if potted up and wintered in the same manner, will be valuable should a severe winter set in. Cuttings of Pentstemons may also be inserted; these will root more readily if placed in pots. Seedling Hollyhocks should be potted up, well draining the pots, and using a light, rich soil. The plants may be wintered in a cool greenhouse or a frame, admitting air freely whenever possible. An occasional dusting with flowers of sulphur usually keeps them free from the fungus.

PLANTING UNDER LARGE TREES.

The bare places under many large trees are frequently a source of worry to the gardener; grass fails to grow, and even the special mixture of grasses recommended for such places soon become weedy and quickly die out. Under many conifers where the shade is dense even that last resource, Ivy, frequently fails to cover the ground. In such cases the best method is to top-dress the tree well with road soil if it can be procured, hoping to induce it to grow freely, and that as the branches elongate they will ultimately hide the bare places. With deciduous trees and evergreens, when a fair amount of light penetrates, much may be accomplished. The soil around the tree should be well broken up. If the soil is at all dry it should receive a copious watering. Then add a quantity of as good soil as can be afforded. After planting well water, and if the time can be spared to syringe the shrubs on dry days they will become established all the more quickly.

SORTS TO PLANT.

This will be a matter largely of district, density of shade, and personal taste; but evergreens will, of course, largely predominate, and unless the space to be planted is large the kinds selected should be as dwarf-growing as possible. The following are a few of the shrubs suitable for the purpose, and will serve to suggest others: Hypericum calycinum, Gaultheria Shallon, G. procumbens, Andromeda Catesbaei, the dwarf and double Furzes, the Butcher's Broom and Ruscus Hypophyllum, R. H. var. Hypoglossum, Vincas, &c. The Sweet Briar and several species of Rosa which become well furnished with hips will supply colour during the winter. If given a peaty soil the Hart's-tongue Fern and some Aspidiums would thrive.

Many bulbous plants might be introduced, such as the hardy Cyclamens, Lily of the Valley, Schizostylis coccinea, Hellebores, Colchicums, the sweet-smelling Coltsfoot, as well as many Crocuses and Narcissi.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

FRUIT GARDEN.

PRUNING.

MOST of the leaves have now fallen, so a start should be made with this work and advantage taken of the mild weather. Pears on walls may be commenced with as soon as Cherries are finished. On old trees which are too crowded with fruit-spurs a few of the worst of the latter should be removed annually, as new shoots generally form freely at the base. Cut back the other young shoots to two or three buds, according to the variety, care being taken in pruning such varieties as Marie Louise, which form fruit-buds at the end of this season's shoots. The shortest of these should be allowed to remain, when they can be cut back at next year's pruning. When pruning is finished nailing and tying should follow; remove the oldest shreds and burn them, at the same time heating the nails to clear them of insect eggs. Use tarred twine for the main branches and clean shreds not too broad for the smaller ones, care being taken not to tie them tightly.

Young horizontally-trained Pear trees which have not filled the required space should be cut back according to strength and the further extension required. Young trees which have been recently planted should only be tied loosely until the soil has thoroughly settled down. The pruning of Pears, Apples, and Plums in the open quarters should next receive attention. Where these trees are given proper attention by summer pinching very little winter pruning is necessary. Thin out the oldest or worst-placed branches on old trees, and thin out the remaining spurs if set too thickly. Carefully thin and regulate the shoots of young trees, and secure them to stakes to bring them to the required position. American blight should be carefully watched, and severe measures taken to keep it in check. Methylated spirit applied with a stiff brush is as good as anything; rub it well into the affected parts.

BUSH FRUITS.

The pruning of these should now be done if possible. In many cases, however, birds are so troublesome that it is best deferred until the spring. Varieties of Gooseberries wanted for dessert should be thinned the most, spurring in the side shoots to two or three buds. Red and White Currants require the side shoots spurred in the same way, and the leading shoots to five or six buds. Remove only the old wood from Black Currants, leaving the young and vigorous shoots, which produce the finest fruit.

GENERAL NOTES.

Now is a good time to give liquid manure to trees which have carried heavy crops of fruit and have not made much growth. Loosen the surface soil, add the same quantity of water as manure, and apply at intervals of two or three weeks or whenever it is available. This will have an invigorating effect on old and exhausted trees either in the orchard or garden.

Impney Gardens, Droitwich. F. JORDAN.

INDOOR GARDEN.

TEA ROSES IN POTS.

UNDOUBTEDLY from plants growing in pots can be cut the greatest number of flowers for the earliest supply. To have them in flower early in the new year the plants should now be ready for taking under protection. For a fortnight they are better for being in a house that is kept closed, no fire-heat being necessary unless severe frost sets in, and then only sufficient to maintain a temperature of about 40°. Syringing may be indulged in, but very lightly, and only during bright weather. Water during this time should be very sparingly given. The hard growth of the plants will by that time have softened, and consequently be ready, immediately they are given a little warmth, for putting forth a robust and free growth that will flower abundantly. The supply of water to the roots must be increased as growth advances, as at this time root action also increases and requires support.

PROPAGATING CHRYSANTHEMUMS.

Preparation for putting in the cuttings with despatch is a work now to be reckoned with, and the longer the operation is delayed the more likely are the cuttings to become drawn and weak. A good position in which to root them is a temporary frame in a dry cold house that is frost-proof. For the purpose obtain strong short-jointed root or sucker cuttings, and insert these singly in 2½-inch pots, or three around the sides of 3-inch pots. Drain the pots well, and fill them with a mixture of finely-sifted leaf-soil, a very small amount of fine loam, with plenty of sand, and in this insert the cuttings, being careful to make them very firm at the base. A thin shade during bright sunshine may occasionally be necessary, but in no case should the light be unnecessarily subdued. Should there be any drip from condensed moisture on the glass admit a little air to the frame, or wipe the inside of the glass with a dry cloth every morning.

BEGONIA GLOIRE DE LORRAINE.

The temperature of the house in which the earliest plants that are in flower are situated should not rise above 50°, and a buoyant atmosphere

should be maintained by the judicious admission of air. Those plants that are still growing and will flower later require a little moisture, created by sprinkling water about the paths and stages, and a temperature 5° higher. Generally the plants are grown in very small pots, and to keep them in robust health apply, with consideration, guano and soot-water, as well as a dose or two of Clay's Fertilizer.

J. P. LEADBETTER.
Tranby Croft Gardens, Hull.

ORCHIDS.

FURNISHING ORCHID HOUSES.

THE present time, when there are not quite such urgent calls upon one's time, is a suitable one for carrying out improvements in many houses, as, for instance, the introduction of a little rockwork under the stages; it should be made to face the path, and be kept so low that the circulation of heat and air is not interfered with in any way. In planting select plants that are not liable to insect pests. We find the varieties of Begonia Rex very suitable and pleasing when mixed with Ferns, &c. Few things are more objectionable than bare walls in glass houses, and I think this is even more pronounced in Orchid houses. With little trouble they can be converted into objects of beauty. In the cooler houses Ficus repens will prove a suitable covering, and common Orchids may be planted in terra-cotta wall pockets and fastened on; in the warmer houses the scandent Epidendrum may be used to advantage. It is also unwise to have the Orchids too near the path. If they are kept back far enough to give room for a single row of small decorative plants, these will form a protection to the choicer plants and give great relief to the general appearance of the house. To get the best results from one's houses these items require attention. I am sure that planting and covering the walls is very helpful in promoting a suitable atmosphere in addition to enhancing in no small degree the attractiveness of the houses.

ZYGOPETALUM MACKAYII.

For the well-being of this fine winter-flowering species it is necessary to allow the plants to become dry before water is given. The black spot so often seen on this Orchid is often caused by watering too freely at this season. The spikes are now well advanced. The new pseudo-bulb is not developed till the flowering season is over, so one would naturally conclude that much water was necessary, but when they are potted in such a compost as I advised in my notes of February 13, and grown in the cool intermediate house, very little water will be needed. When they are watered it should be done thoroughly, so that the whole of the compost is moistened, and if they were dry previous to being watered they will quickly dry again.

LELIA ANCEPS AND ITS VARIETIES.

The flower-spikes are now fast developing, and they should be secured to neat stakes. Some will now be emitting roots. They should be given more water than others that so far have not reached that stage. Light being such an important factor towards the proper development of the flowers, everything that can possibly be done towards that end will be well repaid.

W. P. BOUND.

Gatton Park Gardens, Reigate.

NURSERY GARDENS.

CHRYSANTHEMUMS AT KESTON AND LEWISHAM.

MR. H. J. JONES'S NURSERIES.

RYECROFT NURSERY, since it was taken over by Mr. H. J. Jones in 1890, has been a home of the Chrysanthemum. In the earlier days atmospheric conditions at Lewisham were much better than they are to-day, and for this reason the flowers of new and choice sorts were developed to a high state of perfection. Times and conditions have changed, however, and with less favourable atmospheric conditions that

prevail to-day it is impossible to develop flowers of the high quality that growers far removed from the London smoke can do with comparative ease. For this reason Mr. Jones has wisely partly moved to the new quarters at Keston. For the moment we will confine our attention to the collection at Lewisham, where several large houses are filled with thousands of plants embracing all types, and where, all things considered, the plants are doing extremely well. The collection here is a very representative one, and in consequence Japanese, singles, incurved, reflexed, Anemones, and Pompons are charmingly displayed. The two large houses, each 110 feet long by about 25 feet wide, lend themselves for this purpose. On the occasion of our visit the Japanese varieties were in superb form, novelties abounding, contrasting pleasingly with some of the older ones. One could hardly credit that the plants were grown within six miles of Charing Cross.

Single-flowered varieties, in both large and small-flowered types, were extremely dainty and interesting, and convinced one of their value for floral decorations. Generally speaking, the plants were profusely flowered, and their forms and colours pleasingly varied. Striking examples of these charming flowers were Paris Daisy, a pure white flower on a plant with a perfect habit; Althea, a large rosy magenta flower, shaded cerise, and yellow disc; Mrs. C. Symms, an enlarged form of the popular Miss Mary Anderson, colour bluish white; Princess, a beautiful pure white, petals slightly incurving, colour soft blush, grand clusters when undisbudded; Mrs. E. Roberts, charming blush rose of large size with white zone round yellow disc; bronze sport from Edith Pagram, a grand acquisition, colour reddish bronze; Miss Jessie Dean, a Ryecroft seedling, soft rose with broad white zone round disc, very free and pretty; White Gem, a miniature-flowered white sort, with several rows of petals, excellent for decorative uses when cut in undisbudded sprays; Mrs. Chas. H. Curtis, a glorious crimson of good form, in flower from September till November; Miss D. Bainbridge, an interesting free-flowering large deep rose; Mrs. R. N. Parkinson, a charming bright yellow flower of medium size, beautiful when cut in sprays; and Miss H. Hampson, a creamy white of large size and good form, besides quite a large number of standard sorts. This section will most assuredly become very popular. An immense number of Japanese and other novelties are grown on single stems in 6-inch and slightly larger pots. The flowers developed on many of them were almost phenomenal in size and other high qualities. A magnificent group of the lovely orange yellow Japanese Duchess of Sutherland was the admiration of all. This variety has done exceedingly well almost everywhere this season.

Early flowering varieties are grown in a separate nursery some way from Ryecroft. From August until the end of October, and even later, there has been a blaze of colour, and the most gratifying fact in this connexion is that the Ryecroft seedlings have eclipsed all others. They are noted for their striking colours. Specially good Japanese sorts were: Fire Dragon, vivid crimson; Howard H. Crane, chestnut; Freedom, rosy purple; R. Pemberton, amaranth; Pride of Keston, reddish rose; Pride of Hayes, soft rose; Nina Blick, crimson bronze; Mrs. W. A. Hobbs, rosy carmine; and a very dwarf plant aptly named Dwarf Perfection, rich golden bronze. One advantage the Lewisham stock of Chrysanthemums possesses is its freedom from the much-dreaded leaf rust. The smoky atmosphere acts as a preventive. Rested stock is a great feature at Ryecroft Nursery. Stock plants in pots are plunged in the open during summer and early autumn, and before the cold or uncertain weather is experienced these are lifted and planted under glass. Plants treated in this way give plenty of good cuttings.

The new Leafy Grove Nursery at Keston, Kent, is about two miles from Hayes Station (S.E.R.). It has a beautiful southern aspect, and is protected from north and east. Here 3,500 plants are grown especially for exhibition blooms, and this year they are superb. Three very large, handsome, and commodious glass structures, ideal for

the purpose, are utilised in which to flower the plants, and on the day of our visit the flowers were in the pink of condition. Novelties abounded, and there were also a number of promising seedlings. Of the more popular Japanese sorts, Mr. F. S. Vallis, the grand canary yellow flower, was in superb form, as were also the striking flowers of Henry Perkins, the golden yellow and crimson Japanese of English origin; in fact, continental novelties were almost absent, the quality of the newer English-raised seedlings being better in many respects. There were magnificent blooms of Bessie Godfrey, and the glorious butter-yellow ones of Mrs. Greenfield were very effective. A Japanese flower of a type resembling Lord Ludlow is Mrs. Wheeler Bennett, a promising variety. Mildred Ware, sent out by Mr. Jones in 1903, has been a great success here as elsewhere, and the lovely terra-cotta crimson, Phillipe du Cross, was much admired. Mrs. J. Hadaway, the pale fawn sport from Mildred Ware, is even better than the parent plant, and several fine blooms were there. The rich lake-coloured blooms of Willie Bullimore are of immense size, and keep well. Another large flower is Charles Hobbs, colour rich blood-red, with broad leathery petals. Mrs. Bischoffsheim, the crimson and golden yellow sport from Miss Lily Mountford, is a striking flower; and the deep pink, Mrs. G. D. Judge, is a Japanese variety that should be in all collections. New varieties Mr. Jonea promises to distribute next spring are Mrs. Boosey, a deep rose-pink flower, with silvery white reverse, having broad petals, curling and incurving; Lady Lennard, a large, full, neatly incurved Japanese of good form, colour terra-cotta bronze, a plant easily grown; Mrs. W. Elliot, a creamy white Japanese seedling of great promise, the petals prettily twisted and curling; and Mrs. E. Crossley, a very large flower, quite 8 inches deep and 8 inches broad, the petals broad, and building a full exhibition bloom, pale straw yellow. Other popular sorts that attracted our attention amid the immense number of well-grown flowers were Mrs. F. W. Vallis, W. Duckham, a pretty silvery rose incurved Japanese; Duke of Devonshire, canary yellow, shaded apricot; Mrs. J. Dunn, a superb white; Maud du Cros, pale yellow, tinted green; Miss A. Brown, yellowish buff, shaded with chocolate; Edith A. Fuller, the bronzy red sport from General Hutton; Valerie Greenham, a pleasing pink Japanese bloom of drooping form; President Viger, a novel flower; Mrs. C. Beckett, the new white; Miss Cicely, a glorious rich yellow; and the striking Josephine Rousset, a beautiful rosy amaranth, and a colour badly needed. To Mr. R. C. Pulling, the grower, much credit is due for the excellence of the display, and he is ably assisted by Mr. R. Kenyon, an old and well-known grower and prize-winner.

A GENERAL CALENDAR.

FORCING VEGETABLES.

HOWEVER plentiful outdoor vegetables may be during the winter season there is always a demand for a choicer variety, and if given suitable convenience and material to work upon there is no great difficulty in meeting it.

French Beans—This is without doubt the most difficult vegetable to obtain in quantity for the next three months, for without plenty of light growth is weak, and many of the flowers which form fail to set, especially when there is an absence of sun and foggy weather prevails for days together. The most suitable house must be selected, such as a well-heated Melon house, where the plants can be kept close to the glass and a temperature of not less than 70° be maintained. Pot culture is the method chiefly resorted to in private gardens, and I prefer pots about 7 inches in diameter, as they take up less room, and better results follow in having these well filled with roots than are obtained by using larger ones only partially filled. Those varieties only of a naturally dwarf and free-bearing habit should be selected, such as Osborn's Forcing, Syon House, and Fulmer's Early Forcing.

Carrots.—Only a very gentle heat is required to force these, and young Carrots are highly appreciated in the winter. A steady warmth produced from a body of leaves and well-made frame with a few mats for covering at night are all that is required. Where these are available they could hardly be put to a better use. If a steady bottom-heat is to be maintained from now until spring make up a bed, from 3 feet to 4 feet high, on which to place the frame. The bed should be made sufficiently wide so that more leaves can be packed round the sides of the frame, and if it is thought that the leaves will not generate sufficient heat in themselves, a little fresh stable litter mixed with them will promote fermentation. Having prepared the bed and placed the frame in position, about 9 inches of rich light soil should be put in the bottom and the frame closed for a few days. When the compost is warmed through the seed should be sown thinly and evenly over the surface, and covered with a slight sprinkling of sandy soil. A light watering through a fine rose will assist germination. Keep the frame close until the seedlings push through. Air should then be given, varying it according to outside conditions of the atmosphere. I find that Parisian or French Forcing Horn varieties are the best to sow at this season.



PELLÆA FLEXUOSA (A RARE MEXICAN FERN).

Rudishes.—These are always appreciated when produced during winter, and when grown on a gentle hot-bed the flavour is milder and the roots more tempting than those grown in the open during summer. The same conditions should be followed as recommended for Carrots, only a less depth of soil is required, and this, if possible, should be brought to within 6 inches of the glass. Wood's Frame is a most reliable variety for present sowing.

Roses for Forcing.—Now is a good time to procure established Roses in pots. Such plants may be pruned and forced immediately, their pots being already full of roots. A top-dressing may be advisable, mixing with the loam a little guano; Roses greatly appreciate this manure at all times.

Rose Crimson Rambler.—If this and other Roses are required to bloom about Easter some plants in pots should be procured now, or ground plants potted up would do well. These should be kept cool through the winter, but may be gently forced after new roots have been made.

Forcing Snowdrops.—It is almost impossible to force these very early, but they may be brought into bloom slightly in advance of those outdoors. If

they are wanted very early the best way is to pot or box them early in autumn, keep them in a cool position, and cover with ashes. When growth is advanced remove them to a cool pit, and about Christmas they may be brought into a moist structure, where the temperature does not exceed 45°. Give them a light position with plenty of air; if given too much heat the blooms will not open, all going blind. Excellent Snowdrops may be grown in pots and boxes if brought on slowly in frames, kept close and free from frost.

Norwich.

T. B. FIELD.

CORRESPONDENCE.

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

TROPÆOLUMS FROM CUTTINGS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The practice of propagating Tropæolums by cuttings is not so unusual as one might think from a perusal of the article on page 309, where instructions are given for carrying this out. From time immemorial cuttings have been used for the increase of the different forms of the lobbianum section, of which large quantities are grown every year. Some thirty to forty years ago, before zonal Pelargoniums were so much employed for winter blooming as they are nowadays, Tropæolums of the lobbianum class were largely grown for the purpose, and they were invariably propagated by cuttings, one variety in particular, known as Mrs. Treadwell, being cultivated in large numbers. At that time it was to be found trained up rafters and in similar positions in the different market nurseries, so that bunches of Tropæolum flowers formed a prominent feature in Covent Garden Market throughout the winter months. The most popular colour was a rich deep scarlet. T.

PELLÆA FLEXUOSA (A MEXICAN FERN).

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am sending you a frond and a photograph of the Climbing Fern (*Pellæa flexuosa*), a plant of which I found in 1891 in a dell near the town of Orizaba, in Central Mexico. It was a poor little plant, and its fronds were climbing up a young Thorn tree. It was the only specimen of this Fern that I found, though I brought home roots of various other species of interest. On my return home it was placed in the greenhouse, where it soon grew into a fine plant. It might, perhaps, do better in a stove, as about Orizaba the scarlet Hibiscus forms glorious hedges round the Coffee plantations, the Banana trees flourish by the river, and various beautiful Orchids grow in the surrounding forests. I sent a frond of my Fern to the Curator of Kew Gardens, and he was kind enough to name it for me. He said they had never had a plant of it at Kew, and, if I remember rightly, he said mine was the first specimen that had been introduced into England. It can be very easily increased by division, but is difficult to raise from seed, though it occasionally seeds itself among other pot plants. I have a nice stock of young plants now, and was glad, a few years ago, to be able to send a good specimen to Kew. The plant, of which I send you the photograph, is growing in a 10-inch pot, and measures about 6 feet from the rim.

EDITH A. BAILEY.

Rowden Abbey, Bromyard.

P.S.—Curiously enough, another year I brought home from the Yosemite Valley two plants of another *Pellæa*, of which I now forget the name, which was not in the collection at Kew. Unfortunately, I did not succeed in propagating it and lost both plants.

FRAGRANT HARDY CHRYSANTHEMUMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having read your note in THE GARDEN of the 12th inst. on hardy Chrysanthemums, I think

it would be very interesting to have a good collection of sorts that possess a distinct fragrance. Here are the names of a few: Progne, amaranth, Violet scented; Mrs. E. W. Clark, deep claret, sweet scented; Kate Williams, rich golden yellow, sweet scented; Mrs. Lungtry, rose blush, very sweet; and May Blossom, crimson-marone, which is described as having a strong scent of May Blossom. If any readers know of more than these five varieties I should be pleased to have the names.

S. BARTRAM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Anyone who wishes for sweet-scented Chrysanthemums should grow the white, violet-scented Pompon Sear Melaine, which flowers in October equally well outside or under glass. Another delightful thing is Miss Annie Holden, a fawn-coloured single, whose delicious perfume is made up of honey combined with the aromatic smell of the Chrysanthemum. This also does very well out of doors.

Cumberland.

CLARA MYERS.

EREMURUS ROBUSTUS IN SCOTLAND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I herewith enclose a photograph of Eremurus robustus, which you will perhaps think worthy of a place in your valuable paper. [Unfortunately, not suitable for reproduction.—Eo] An illustration of the same plant appeared in THE GARDEN for August 30, 1902. Since then it has steadily got stronger, and this autumn we have divided it and have got thirteen strong crowns. These we have replanted. The plant is growing in a herbaceous border, with a south-west exposure, and beyond receiving careful attention in the matter of protecting the young shoots from frost when they appear in spring, it is treated in all respects in the same way as the other occupants of the border. Although the shoots this year were over 10 feet high, they required no supporting. The photograph was taken by Mr. McGregor, Kelso.

WILLIAM WOOD.

The Gardens, Newton Don, Kelso.

LILIUM LONGIFLORUM HARRISII OUT OF DOORS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Would the enclosed photograph be of any use for publication in THE GARDEN? It shows Liliium longiflorum Harrisii planted in a south border. They remained in flower at least three weeks. Similar groups in other situations and in



A BED OF LILIUM LONGIFLORUM HARRISII.

different soil did equally well. They were grown in Colonel Hanford's garden, Flood Hall.

ANNIE HANFORD-FLOOD.

Thurston Cottage, Bury St. Edmunds.

APPLE BEAUTY OF BATH.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I, too, have a good word to say for this early dessert variety. Three years ago I grafted several standard trees of Ecklinville Seedling with

this variety. The grafts grew amazingly, and now they are huge heads, and gave a good crop of fair-sized, highly coloured fruit, which were disposed of quite readily. I intend to add this more freely to the collection here, as I can see it is infinitely superior to many so-called good market Apples.

Swanmore.

E. M.

PHYGELIUS CAPENSIS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A peculiar circumstance arose a few weeks ago in regard to the staging of this Figwort as a herbaceous plant. The judges passed it as such, but an exhibitor protested that it was not eligible as a herbaceous plant on account of its not dying down annually. In a mild winter it does not die down to the ground line, but remains quite woody, and produces its flowers from these parts as well as from the current year's growth from the base. Nicholson describes it as a South African shrub, and recognising this authority one is led to the conclusion that the protest alluded to had good and reasonable grounds, in spite of his objection being overruled by the judges. For September and October it is a desirable plant, as with liberal treatment in a sunny spot I find it thrives amazingly. I found it growing here twenty-six years since, and here it is in spite of the hardest frost we have had, and without any protection; thus there cannot be any doubt about its hardiness.

South Hants.

E. MOLYNEUX.

FREESIAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In a recent issue of THE GARDEN a writer stated that he had just withdrawn his bulbs from the plunging material. When I first began growing Freesias I thought it best to plunge the pots until the young growths were well above the soil, but I have since found this to be absolutely unnecessary. The less one fusses about Freesias the more likely they are to do, and I now treat them in the same way that the Guernsey growers do. I put them in the open in the full sun, and allow them to remain there until the latter end of September. Sometimes, if I happen to have frame room, I keep them out until November, just protecting from sharp frosts. In this way they start under natural conditions. I usually pot all my bulbs early in August, as I have not found that later potting gives succession. I believe that, as in the case of Hyacinths, it is better to pot all the bulbs early, and forward or retard in other ways. Some complain that their stock deteriorates, but I am strongly of opinion that much of this deterioration is due to comparative neglect after blooming. Bulbous-rooted flowers more than other things are apt to be overlooked after blooming.

J. CORNHILL.

LILIUM TESTACEUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reference to the note on page 332 of THE GARDEN for the 12th inst. about Liliium testaceum, in "Hausmann, Flora von Tyrol," Vol. II., page 874, appears the following note about the distribution of Liliium candidum: "In gardens, more especially in those of country folk in the mountains (sic), Bozen. On a slope of the Streitberg as a garden fugitive." Now, does not this point towards the probability of a similar occurrence in the case of L. testaceum in Switzerland, as mentioned by your correspondent? For, what is more likely to happen in the mountains, where cereals are not grown and litter for the stable is consequently always a scarce commodity, and where notoriously every available scrap is being carefully collected for that purpose, than that in this manner the refuse of a peasant's garden, seeds and all, should find its way to the refuse heap, and thence as manure to the grassy slopes, where any stray Lily seeds would find congenial conditions for germination? I have not a "Flora of Switzerland" by me, but surely, were L. testaceum indigenous there, such a conspicuous flower could not possibly have escaped the notice of botanists. L. testaceum

has, however, a very decided oriental aspect which makes the theory of its being a hybrid more acceptable. In the Tyrol only L. bulbiferum and L. Martagon are indigenous.

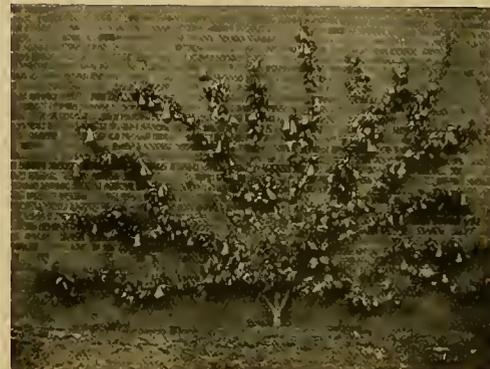
Planegg, Bavaria.

E. HEINRICH.

PEAR CONFERENCE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This Pear takes its name from the Pear conference held at Chiswick at that time. It has



PEAR CONFERENCE ON A WALL.

received a first-class certificate from the Royal Horticultural Society. It grows and bears equally well on the free, Pear, or Quince stock. It has a good constitution, and is a most profitable variety for market. The unripe fruit is most excellent when stewed, and this is a very good way to utilise those fruits that fall or are damaged. The tree illustrated was planted in my garden at Fontley four years ago, against a wall with a south aspect. It was then three years old, and is trained to wire projecting 3 inches from the wall. The garden is situated in a clay pit. The border was well trenched, also well drained with brickbats. The clay was burned and the roots of the tree were spread out on the border, and a covering of 4 inches of the border soil laid over the roots, bringing it to a raised mound. This year the tree has borne over forty Pears like the specimen enclosed; in fact, the tree has borne a good crop each year. I consider it a reliable and profitable Pear to grow. Last year was a very bad fruit season, yet Conference bore a splendid crop. The roots were well watered during July, August, and September.

Fontley, Fareham, Hants.

E. CARLYON.

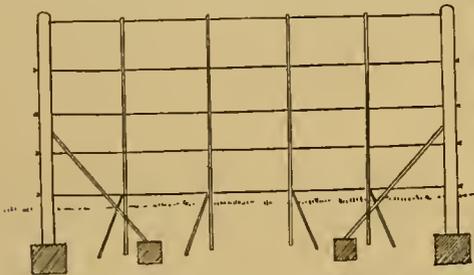
THE FRUIT GARDEN.

APPLES AS CORDON ESPALIERS.

DURING recent years this system of training Apple trees in gardens has gained much favour. It has many points to recommend it. The most important ones are that if the training wires are fixed to run from north to south the trees receive the full benefit of light and sunshine, as well as free circulation of air among the branches—two essential conditions to the successful growth of this or any other hardy fruit. These conditions are not present to the same extent in a pyramid, bush, or standard tree; therefore fruit of larger size, better quality and flavour is obtained from Apple trees trained in this way than from any other form. Among other points in favour of the espalier is the fact that it takes up but little room, and is, therefore, for gardens of small extent especially, to be recommended. It lends itself also in a special degree to the more systematic cropping of the kitchen garden with vegetable and other crops

by dividing the garden into convenient quarters of various sizes. For the margin of walks Apples grown in this way are very attractive, both in flower and in fruit, and as a background to a border of hardy flowers most effective. They are also useful for screening the vegetable quarters from view. Horizontal or fan-trained trees succeed equally as well grown in this manner, but the cordon enjoys certain advantages over them. With cordons it is possible to cover the trellis at once with established fruit-bearing trees in one season, thereby giving a return of fruit to the owner at once instead of having to wait a considerable number of years, as would be the case with horizontal or fan-trained trees. Another advantage, especially to those with small gardens, is the fact that it is possible to plant a greater number of sorts on a limited space, securing thereby the charm of variety as well as a much longer succession of ripe fruit.

This simple form of espalier may be elaborated into many forms, such as covered ways



over walks, arches at intervals, or pillars and chains, but the simple espalier, as shown in the sketch, no doubt is the best. It is easily fixed by having strong iron posts at each end of the line with angle supports, and their bases in heavy stones and secured by molten lead being poured in. Should the espalier line be longer than 120 feet another strong post like the end ones should be fixed in the middle; these posts are for the purpose of tightening and straining the wires to give rigidity. The intervening posts need not be so heavy, neither will they require stone supports at their base, only a foot, as is common with ordinary hurdles.

The end posts should be 4 inches in diameter and of solid iron; 2-inch angle iron is strong enough for the intervening posts. The wires should be 10 inches apart, three-eighths of an inch thick, and the trellis when completed should be 5½ feet or 6 feet high from the ground level. The cordon trees should be planted 18 inches or 2 feet apart, according to whether the varieties are strong or moderate growers. Speaking generally, 18 inches is wide enough for the dessert varieties and 2 feet for the culinary sorts. Having such a limited space to grow in, it naturally follows that the cordons should be worked on the dwarfing English (not the French) Paradise stock. The soil should be deeply dug and manured with rotted manure. When they are established and growing freely a mulching of manure should be spread 2 inches thick on the surface of the soil over the roots in spring.

The system of pruning cordons must of necessity be one of restriction, namely, that which is commonly understood as close spur pruning. This is very simple, and consists, in the first place, in disbudding the wood growths when they are about half an inch long in spring, leaving only three shoots to grow in clusters, about 6 inches apart, the whole length of the stem. If it should turn out, as growth advances, that the tree is too crowded with foliage further disbudding must take place in order to avoid overcrowding and to enable the remaining shoots to gain full development and maturity during the summer and autumn. The new shoots should be shortened to within six or seven buds of the base the last week in July or the first week in August. The branches will then have attained nearly their full size, and this shortening of the shoots will help to swell and strengthen the base, as well as to plump up the buds. At the winter pruning these shoots should be cut back to three buds, when the whole of the treatment, as far as pruning goes, will have been carried out for the year. My experience goes to prove that once cordon fruit trees are got into condition for bearing good and regular crops—which they will do in the course of three or four years—there will be very little pruning required afterwards, possibly a little disbudding in spring, stopping the stronger shoots in summer, and the usual pruning in winter. It generally happens that a few of the varieties planted fail to fruit so freely or so early as the others, making instead a stronger growth. Where this is the case the only effective remedy is to lift the tree from the soil, shorten its strong roots, replanting again immediately, and adding a little fresh soil.

The following limited and select list is submitted as consisting of some of the best known varieties, both of dessert and cooking; these are arranged in the order of their ripening as near as can be. Cox's Orange Pippin is without doubt the best dessert Apple we have at present, and when carefully harvested is in season for dessert from the end of October to the end of January (and much later than this sometimes),

so a greater proportion of this variety should be planted than of any other.

Dessert.—Red Juneating, Irish Peach, Devonshire Quarrenden, Worcester Pearmain, Wealthy, James Grieve, Okera, King of the Pippins, St. Edmund's, Ribston Pippin, Cox's Orange Pippin, Mother, Chas. Ross, Mabbott's Pearmain, Washington, Blenheim Orange, Hubbard's Pearmain, Scarlet Nonpareil, King of Tompkin's County, Baumann's Reinette, Lemon Pippin, Lord Burleigh, Duke of Devonshire, Fearn's Pippin, Court Pendu Plat, Sturmer Pippin, and Allen's Everlasting.

Cooking.—Keswick Codlin, Lord Suffield, Lord Grosvenor, Cellini, Ecklinville, Grenadier, Stone's, Blenheim Orange, Golden Noble, Warner's King, Bismarck, Mère de Ménage, Royal Jubilee, Beauty of Kent, Wellington, Lane's Prince Albert, Newton Wonder, Bramley's Seedling, Alfriston, Northern Greening, and May Queen.

OWEN THOMAS.

FRUITS IN SEASON.

APPLE MABBOTT'S PEARMAIN.

THIS Apple, the subject of our illustration, is an old dessert variety of great excellence. It is a mid-season variety, being in season from November to January. It is one of the most prolific bearers, as well as one of the hardiest sorts we have, succeeding well as an orchard standard. It is of medium size and handsome appearance, the general colour being orange yellow with streaks of red on the sunny side. Most people prefer a dessert Apple having a sweet flavour, but there are many others who prefer an Apple with a brisk and sub-acid flavour. To those in search of one possessing these qualities this Apple may be especially recommended.

A GOOD NOVEMBER PEAR—THOMSON'S.

MANY Pear growers do not give this variety room in their gardens, as they depend largely on Doyenné du Comice, but I think Thomson's should not be overlooked. Though it may not be considered equal to the variety named, it is an excellent fruit. At Syon this Pear is a little later than Doyenné du Comice, but that may not be the case in all gardens, as our trees are on a cooler site, and the soil causes great difference in ripening. It also does not succeed so well



APPLE MABBOTT'S PEARMAIN. (Slightly reduced.)

on the Quoico; indeed, to get the best results it should be double grafted and given a warm wall, and then the fruit will be of splendid quality. It is not suitable for heavy clay soils unless specially prepared, as grown thus it cracks badly. Given good culture, however, the tree is quite hardy, and the return is excellent; indeed, with us it fruits when others fail. This is one of the best of the November Pears, and though not large it is a nice size for dessert, and is always asked for by those who like quality and do not care for mere size.

O. T.

BOOKS.

Some English Gardens.*—Mr. Elgood's delightful garden pictures are so well known that it is almost superfluous to dwell on their merit. The reason of his success, apart from, and yet in closest connexion with, his artistic ability is not far to seek, and is found in his own true love of a garden and intimate sympathy with the varied beauties of plant life. In this handsome folio volume—on whose production publisher, printer, and reproducer may alike be congratulated—fifty garden pictures are gathered together from places throughout the length and breadth of the British Isles. There are scenes in the gardens of some of the lordly palaces of the English Renaissance, such as Hardwick and Montacute; in those that have been made in later days around places dating from a remoter antiquity—some of them ancient fortresses—Berkeley, Crathes, Kellie, Peashurst, and Compton Wynyates; of ancient manors, beautiful with the timber structure and ornament of Tudor days, such as Speke and Great Tangley. From these, whose buildings dominate the garden design, to the modest flower border of the labourer's cottage, the same story is told throughout; of that delight in the beauty of flowers that has so strong a hold of English hearts, and of the many pictures the gardens offer to the eye and mind of the sympathetic artist. The reproductions, by the three-colour process, though not all equally successful, are a good example of the great progress that has been made of late in this remarkable development of the photographic art. Specially successful plates are "The Pergola, Great Tangley," page 8; "The Pool, Bramham," page 16; "The Yew Alley, Rockingham," page 34; "The Yew Walk, Crathes," page 42; "Ram-cliffe: Orange Lilies and Monkshood," page 58; "The Yew Arbour, Lyde," page 107; "Phlox and Daisy," page 112; and "Michaelmas Daisies," page 122. The letterpress, by Miss Jekyll, consists not only of descriptive notes on the actual places, though the description is sufficient to present to the receptive reader a fairly complete idea of the environment of the actual subject. It contains also a good deal of critical observation, and draws attention to various matters that are of special interest and importance in relation to the more thoughtful, and therefore more effective, aspects of modern gardening.

OBITUARY.

GEORGE THOMAS MILES.

THE sudden death of Mr. Miles on the 17th inst. will come as a painful surprise to his many gardening and other friends throughout the country. It is only a few weeks since we had the pleasure of meeting him at the new hall of the Royal Horticultural Society, when he appeared to be in the enjoyment of his usual health and good spirits. Those who can look back some twenty-five to thirty-five years ago will remember that Mr. Miles formed one of a band of gardeners as eminent in their day as any before or since. His contemporaries included Coleman of Eastnor Castle, Thomson of Drumlanrig (both happily still with us), Thomson of Clovenfords, Speed of

Chatsworth, Baines of Southgate, Barnes of Bicton, Henderson of Cole Orton, Frost of Dropmore, Tillery of Welbeck, Gilbert of Burghley, Ingram of Belvoir, and many others. At that time the greatest encouragement and impetus to horticultural exhibiting was given, and it is not too much to say that the shows of those days have rarely, if ever, been surpassed; Mr. Miles was then very successful as a grower and exhibitor of fruit and vegetables.

One of his great hobbies was Pine-apple growing, of which he was a master. He was one of the first to explode the belief that prevailed among gardeners of that day that a good Pine-apple could not be grown and fruited from the sucker in less time than from two and a half to three years. He showed how Charlotte Rothschild Pine (9lb. in weight), and other varieties in proportion, could be fruited in from ten to eighteen months. He was the raiser of an excellent winter fruiting variety named Lord Carrington.

Mr. Miles was born in the village of Clewer, in Berkshire, where he started his gardening career in the gardens of the Hon. Henry Ashley. He remained there four years, afterwards spending three and a half years in the gardens of Combermere Abbey, Cheshire. His next move was to Keele Hall, which at that time had a garden of great renown. Here he remained as journeyman



THE LATE MR. G. T. MILES.

and foreman for more than three years, when he was recommended by Mr. Hill as gardener to the then Earl of Carrington at Wycombe Abbey; this was in February, 1858. Those who have had the pleasure of Mr. Miles's friendship know only too well that he was never tired of speaking of the great kindness and encouragement he always received from the late and present Earl and Lady Carrington, whose confidence and friendship as gardener (and latterly as agent) he has enjoyed for the long period of forty-six years. Mr. Miles has left behind a name pregnant with good example in industry, faithfulness, and perseverance. He died in the seventy-fourth year of his age. The sincere condolence and sympathy of the gardeners of England will be extended to his widow and family. The funeral took place on Monday last at High Wycombe.

SOCIETIES.

WOOLTON HORTICULTURAL SHOW.

THE sixth show was held at the Church Hall, on the 9th inst., and the Lecture Hall and Boys' School proved altogether inadequate for the exhibits. The entries had risen from 317 to 426, a record for the society. The exhibits, as usual, were noted for their excellent staging, making the show

a very pretty one. Only a few of the more important classes will be noted, with the first prize winner in each case.

CHRYSANTHEMUMS.

Twenty-four Japanese, distinct: Mr. Joseph Stoney, gardener to F. H. Gossage, Esq., had some good fresh blooms that also secured the silver challenge cup presented by Mrs. W. W. Gossage. For eighteen Japanese, Mr. T. Clarke, gardener to J. Clarke, Esq., was first. Twelve Japanese: First, Mr. J. Keightley, gardener to P. W. Barr, Esq. Eighteen incurved: First, Mr. J. Stoney, with excellent blooms. Twelve incurved: First, Mr. T. Clarke. Twelve distinct Japanese, arranged for effect: First, Mr. G. Haigh, gardener to Sir W. H. Tate, with a pleasing combination. Nine vases, distinct: First, Mr. J. Wilson, gardener to Sir J. T. Brunner, Bart.

FRUIT.

Black Grapes, two bunches: First, Mr. W. Wilson, with good black Hamburgs. Mr. A. Hitchman, gardener to S. Sanday, Esq., had the best white Grapes in Muscat of Alexandria. Apples and Peas were well shown, the winners being Mr. G. Hammond, gardener to Colonel Ireland Blackburne, five first prizes; Mr. T. Lunt, one; Mr. E. Marshall, gardener to Mrs. Tod, one; Mr. J. McColl, one. Vegetables were largely shown, and filled the Lecture Hall. The chief prize-takers were Messrs. J. Glover, G. Hammond, R. Rothwell, T. Lunt, J. Honey, T. Keightley and Mrs. E. Sutton. The arrangements, as already mentioned, were excellent.

ECCLES AND PENDLETON HORTICULTURAL SHOW. This show was held in the Town Hall on the 11th and 12th inst. The entries were quite up to the average. The Chrysanthemums in pots were not very numerous, and were all staked plants. For nine large flowering plants, not less than five varieties, the premier prize and the National Chrysanthemum Society's silver medal were won by W. S. Boddington, Esq. For three plants, single-flowered, the chief award went to Mr. J. Ashley, gardener to the Lady Annette de Trafford, Westast.

Cut blooms were shown in considerable quantity, but lacked uniformity. For twenty-four cut blooms, twelve Japanese and twelve incurved, there were four competitors for the silver challenge cup presented by the late John Stanning, Esq. Mr. J. Stoney, gardener to F. H. Gossage, Esq., proved the victor with an excellent lot. A bloom of Bessie Godfrey in this exhibit secured the silver medal of the National Chrysanthemum Society for the best bloom in the show.

Twenty-four blooms (six incurved, six Japanese, six reflexed, and six Anemones): First, Thomas Woodward, Esq. Twelve incurved, distinct: First, Mr. S. Ollier, gardener to F. Ashworth, Esq. Twelve Japanese, distinct: First, Mr. J. Stoney. Twelve large varieties (six incurved and six Japanese): First, Mr. J. Kirkham, gardener to Miss Stanning, Knutsford. Eighteen large flowered, six varieties, with their own foliage: First, Mr. J. Quinn, gardener to Mrs. Boddington, Eccles. Eighteen sprays of singles, in six varieties: First, Mr. J. Ashley. Twelve blooms (six Japanese and six incurved): First, Mr. R. Wainwright, gardener to T. Gaddum, Esq., Pendleton, winning the silver medal presented by Councillor Bethel. For six blooms (three Japanese and three incurved), Mr. W. Holmes, gardener to W. S. Forbes, Esq., Eccles, had the best.

In the amateurs section W. Woolton, Esq., secured the first prize and silver challenge cup, presented by Mr. Agnew, with a good exhibit. As showing the skill of this exhibitor ten first prizes stood to his credit. The third challenge cup, presented by J. T. Lewis, Esq., for amateurs, was well won by H. D. Ashcroft, Esq.

Among the non-competitive exhibits Mr. W. Elkin (chairman of committee, and gardener to Mrs. Agnew), as usual, contributed some fine Palms. Stewart Garnet, Esq., Pendleton, sent a number of decorative plants that embellished the stage. Mr. J. Greatrix showed wreaths, &c. Messrs. Dickson, Brown, and Tait, Manchester, sent a fine bank of Begonia Gloire de Lorraine, Ferns, &c. Messrs. Dickson and Robinson had a large collection of Potatoes. Mr. J. Eryan, who is the hon. secretary, deserves congratulations for such a successful issue to his hard work.

CUPAR AND NORTH OF FIFE HORTICULTURAL SOCIETY.

OWING to the lack of public support recently a crisis has arisen in the affairs of the Cupar and North of Fife Horticultural Society, and a meeting was held in the Corn Exchange, Cupar, on the 8th inst. to consider as to the advisability of discontinuing the show for a year or two. After full consideration it was agreed to carry on the show as usual, and the following office-bearers were appointed: President, Mr. D. C. Stewart; chairman, Mr. D. S. Edmond; vice-chairman, Mr. C. Dicker; secretary and treasurer, Mr. George Wood; committee, Messrs. Brown, Clark, Donaldson, Drysdale, McGregor, Mackenzie, Oliphant, and Reid. The desirability of holding a concert in aid of the funds was referred to the committee.

BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

THE meeting of this association was held at St. John's Rooms on the 10th inst. Mr. P. Garnish occupied the chair, and, notwithstanding the inclement weather, the attendance was good. The appointed lecturer for the evening was Mr. Wakefield, gardener to Mr. A. Shipley, Westbury-on-Trym, who took for his subject "Begonia Gloire de Lorraine and Gloxinias." He detailed the method of cultivation of these favourite flowering plants—potting composts, propagation, feeding, and general treatment in a practical way. Insect pests also received attention. Fumigating by the NL All Vaporising Compound was said to be the best of all methods for eradicating insect. A good discussion followed the lecture, and Mr. Wakefield received the heartiest thanks of the meeting.

Prizes for a vase of Chrysanthemums were awarded to: First, Mr. Francis Taggart (gardener, Mr. Binfield); second, Mrs. Colman (gardener, Mr. Spry); third, Mrs. Henry

* "Some English Gardens." After drawings by George S. Elgood, R.L., with notes by G. Jekyll. Longmans, Green, and Co., London, 1901. Price £2 2s.

Derham (gardener, Mr. Sease). Prizes for Potatoes were also awarded, the successful competitors being the Rev. — Harvey (gardener, Mr. Bracey); Mr. Francis Taggart (gardener, Mr. Binfield); and Colonel Bains (gardener, Mr. Young). Certificates of merit went to Mr. W. H. Butler (gardener, Mr. Finch) for Violets, and to Mr. A. Shipley (gardener, Mr. Wakefield) for three Begonias; a special being recommended for Mr. A. Hall (gardener, Mr. Ware), for an Oucidium.

CHRYSANTHEMUM SHOW AT BEITH, N.B.

A VERY successful show of Chrysanthemums was held in the Town's House, Beith, N.B., on the 12th inst. The show was considered the best yet held by the society, and in the different sections there were several exhibits of great outstanding merit. The principal prize, a silver cup, presented by Mr. Bryce Knox, was awarded to Mr. Andrew Stewart, Mainhill.

EAST OF FIFE CHRYSANTHEMUM SOCIETY.

The twelfth annual show of this society was held in the Co-operative Hall, Methil, on the 10th inst. Although the twelfth of the series, it is the first one which has been held in the parish, and this was humorously remarked upon by Colonel Johnston, East Wemyss, in his speech at the opening of the exhibition. The show was a most successful one, both in the points of quantity of exhibits and in their quality, all the departments including specimens of high merit. The leading prize, the silver cup presented by Dr. Dawson, Buchhaven, for twelve blooms of Japanese in twelve varieties, was won by Mr. Angus Robb, Dysart House, Dysart, with twelve blooms of superb quality; while Mr. D. M. Pryde's silver medal for twelve blooms was won by Mr. John Farmer. Other leading winners were Messrs. Black, Hampton, Short, Maule, Watson, Cook, Law, Dallas, and Halley.

KIRKCALDY CHRYSANTHEMUM SOCIETY.

THE third show of this society was held in the Adam Smith Hall on the 11th and 12th inst., being opened on the first day by Miss Oswald of Dunniker, who spoke in enthusiastic terms of the beauty of the Chrysanthemum. The show revealed the continuous progress made in the cultivation of the Chrysanthemum in the district since the formation of the society, and there was a general agreement that both cut blooms and plants were considerably superior to those of last year. In the classes for cut blooms the premier honours were carried off by Mr. D. McLean, gardener to Mr. R. C. Munro-Ferguson, M.P., Raith, Kirkcaldy, who secured the Challenge Cup, presented by Sir Michael B. Nairn, and also the Kirkcaldy Corporation medal. Others successful in these classes were Mr. A. Johnstone, Ramornie; Mr. J. Brown, Balfour House; Mr. A. Robb, Dysart House; Mr. W. Shout, Lahill; Mr. J. Pattersin, Bennochy Park; and Mr. J. Blyth, Cockairnie. In plants several of the above also distinguished themselves. These classes were very fine, fruit and vegetables were excellent, and the competition strong. Among the successful competitors with fruit were Mr. A. Johnstone; Mr. D. Hammond, Pitmillen; Mr. J. K. Brown, Dunniker, and several others. The committee are to be congratulated on the success of their arrangements.

BLAIRGOWRIE CHRYSANTHEMUM SHOW.

THE Horticultural Society held its first Chrysanthemum show at Blairgowrie on November 10, and there was general satisfaction at the prospect of a series of successful shows. Although some of the exhibits were hardly up to exhibition standard, there were many of excellent character, and it is confidently anticipated that another year there will be both more entries and keener competition. Cut blooms were the best feature of the show, but pot plants were capable of improvement. Early varieties were well shown in vases, and Mr. Collie, Drumkillo, who was one of the judges, brought a number of superb large blooms, which served as an object lesson of perfect flowers. The show was opened by Captain Blair Oliphant.

MAIDENHEAD CHRYSANTHEMUM SHOW.

THE seventh annual show under the auspices of the Maidenhead Chrysanthemum, Fruit and Vegetable Society was held in the Town Hall recently, and was a great success. The arrangements, which were on similar lines to those of former years, were well made and admirably carried out by Mr. J. W. Stone (hon. secretary), Mr. J. W. Richardson (assistant hon. secretary), and the committee.

Mr. W. Hammond, gardener to Mrs. Lewis-Hill, Woodside, near Boulter's Lock, was the most successful exhibitor. He secured for the second year in succession the Maidenhead Chrysanthemum Society's Challenge Cup, value fifteen guineas, in the open class for forty-eight Japanese blooms, not less than twenty-four varieties. In all he gained eight first prizes, three seconds, and two thirds, every exhibit from Woodside being awarded a prize. The second prize in the open class above referred to was won by Mr. W. Watson, gardener to F. Cox, Esq., Harefield Place, Uxbridge.

In the class for twelve incurved blooms, distinct, Mr. A. J. Marsh, gardener to N. Hodgson, Esq., Morton House, King-worthly, Winchester, took first prize, and Mr. W. Watson second. The premier prize for eight vases of Chrysanthemums (Japanese) went to Mr. Torham, who also received the National Chrysanthemum Society's silver medal. The same society's certificate of merit for the best incurved bloom was awarded to Mr. A. J. Marsh for his Charles Curtis, while Mr. W. Hammond received a similar certificate for the best Japanese bloom in the show. The pots of Gloire de Lorraine Begonias on the stage attracted considerable attention. The premier prize for six pots of this pretty Begonia was awarded to Mr. J. I. Challis, gardener to A. Kennedy, Esq., Taplow, for a magnificent lot, while Mr. E. Allen, gardener to E. O. Preston, Esq., Melmoth Lodge,

Cockham, was awarded second prize, and Mr. W. Stephens, gardener to S. Heilbut, Esq., Holyport, third.

The groups of miscellaneous plants were effectively arranged, as were also those of Chrysanthemums, while the fruit and vegetables were staged to the best advantage. In the class for a collection of vegetables there was a record entry—eleven—but nine only were staged.

There were, as usual, several noteworthy exhibits not for competition. Mr. W. Broughton had most effective floral designs. Mr. W. Stephens, gardener to S. Heilbut, Esq., Holyport, showed a fine collection of Gourds. Mr. E. F. Such, of the Braywick Road, Nurseries, had a capital display in the corner near the Council Chamber. Messrs. W. Cutbush and Son, of Highgate, also exhibited. Mr. D. Ingamells, King's Grove, Maidenhead, had a unique show of seed Potatoes of the disease-resisting varieties from the best growing districts of Scotland (Forfarshire and Lincolnshire).

SHEFFIELD CHRYSANTHEMUM SOCIETY.

FOR many years the annual show of this well-known north country Chrysanthemum society has been regarded as one of the best of its kind in the United Kingdom, and the display on the present occasion was no exception to the rule. As a matter of fact, in certain respects it was distinctly ahead of any previous exhibition, as on Friday and Saturday, the 11th and 12th inst., the return to their old quarters in the Corn Exchange enabled the committee to make a remarkably fine display and to offer additional valuable prizes. The very heavy charge for the use of the Cutlers' Hall during the last two years was crippling the society, notwithstanding the fact that almost £200 was received for admission to the show, and together with about one hundred guineas for subscriptions, provided a tangible sum to deal with. A sum of about fifty guineas was charged for the use of this historic building, and this item, contrasted with twelve guineas for the use of the Corn Exchange, will give some idea of the advantages offered in the latter place.

The show was a very fine one, and the new class designated the Lord Mayor's Vase Class, which was suggested by the judges last year, proved a great attraction to competitors as well as to the public. This competition was for eight vases of Japanese Chrysanthemums in eight varieties, three blooms of one variety in each vase, with Chrysanthemum foliage, which may be added on separate stems. Seven entries were received, and six of the entrants staged their blooms. Better Japanese Chrysanthemums have never been seen than those set up in the first and second prize exhibits. It was a battle of the giants, and the offer of £10, £7 10s., £5, and £2 10s.—£25 in all—was, no doubt, the reason why certain well-known growers had reserved themselves for this important event. The judges had a very difficult task in discriminating between the leading exhibits, and ultimately the blooms of Mr. E. J. Brooks, gardener to Lieutenant-Colonel Beech, Brandon Hall, Coventry, gained the premier position by half a point. His blooms of Henry Perkins were phenomenal, being large, well coloured, and deeply built, and other good flowers were Mr. F. S. Vallis, Bessie Godfrey, Ethel Fitzroy, Mrs. Geo. Mileham, Mrs. Barkley, Mme. Paolo Radaelli, and Mme. Gustave Henri. The last-named spoiled the set, although they were good blooms of the variety. Uncomfortably close was Mr. F. S. Vallis, Brouham Fruit Farm, Chippenham. His series of blooms were beautifully finished and even, and it was easy to be misled into thinking they should have been placed first. His blooms of Mr. F. S. Vallis were the finest we have seen, "superb" aptly describing their quality. Blooms, too, of Mrs. F. W. Vallis, President Viger, Bessie Godfrey, Mrs. Barkley, and General Hutton were typical representatives. Mr. C. Crooks, gardener to the Dowager Lady Hindlip, Droitwich, was third with a fine lot of flowers; and Mr. E. J. Clark, gardener to Mr. Mark Firth, Leicester, was fourth, his blooms of Mr. F. S. Vallis being grand.

The south triumphed with incurved blooms. In the class for twenty-four blooms, in not less than eighteen varieties, Mr. W. Higgs, gardener to Mr. J. B. Hankey, Leatherhead, was a good first with large, well-developed incurved blooms of globular form. Noteworthy flowers were G. W. Matthew, Lady Isabel, Frank Hammond, Maurice Sargent (new), Fantia Ralli, Islede, Duchess of Fife, Miss E. Seward, Mrs. F. Judson, Mrs. B. J. Jones, W. Pascoe, and Countess of Warwick. A very fine display secured second prize for Mr. G. W. Drake, Cathays Terrace, Cardiff, who had specially good blooms of May Phillips, Miss E. Seward, Frank Hammond, and M. O. Demmelenyere (new). Mr. Charles Jennings, gardener to Mr. F. W. Jameson, North Ferry, East Yorks, was third, having many blooms of good quality. There were four exhibitors in this class.

The seven exhibits in the class for twenty-four Japanese blooms, in not less than eighteen varieties, made a striking display. In this instance Mr. F. S. Vallis easily asserted his superiority, winning premier honours with blooms of good quality. They were beautifully even and well coloured, and set up with considerable skill. Striking examples were those of Mr. F. S. Vallis, Valerie Greenham, Mrs. F. W. Vallis, Chry. Montigny, President Viger, Mme. Carnot, Mme. Robertur, W. R. Church, J. H. Silsbury, Mme. Paolo Radaelli, Miss Stopford, and others. The second prize was won by Mr. E. J. Brooks, also with a good set, though with less colour and finish than those in the leading stands. Henry Perkins, Duchess of Sutherland, W. R. Church, J. H. Silsbury, General Hinton, and Miss Olive Miller were blooms of high quality in this exhibit. Mr. Charles Jennings was again third, and Mr. Drake fourth.

Mr. F. J. Clark was first for twelve Japanese, distinct, showing good blooms of Mr. F. S. Vallis, Marg. Venosta, W. R. Church, Mildred Ware, Duchess of Sutherland, and Mrs. Barkley. In this instance Mr. Drake was the only other exhibitor, and he was placed second.

Mr. Higgs was again to the fore in the class for twelve incurved, distinct, showing large and even blooms of good form. Mr. Drake again was a good second, and Mr. Jennings a creditable third.

The distinct classes were well contested in most instances. Messrs. J. D. Ellis, J. Culley, S. Roberts, M.P., C. Cook, J. G.

Graves, J. F. Montague, Alderman G. Senior, and Mrs. A. Barnes being the chief prize-winners.

Amateurs showed remarkably well, many of their exhibits being most commendable. Both Japanese and incurved flowers were shown well, the latter particularly so. Could these growers combine, they could stage a collection of some of the best incurved blooms ever seen. The principal prize-winners were Messrs. R. Smith (who won four first prizes), J. W. Smith, W. Smith, J. Wright, W. T. Anderson, J. Booth, B. Johnson, and T. Lygo.

Cottagers are given special encouragement, and as many as eight prizes are awarded in each class. Their exhibits were specially good, the blooms of the incurved type being especially praiseworthy. Mr. T. Fletcher won three first prizes, and other successful exhibitors were Messrs. W. Fenwick, H. G. Betts, F. May, W. Crawshaw, F. O. C. Dale, T. W. Toulson, and J. Sellars.

The affiliated societies' class is always interesting, and is for twelve Japanese and twelve incurved blooms, in not less than eighteen varieties. The Nether Hallam Chrysanthemum Society won the first prize for the third time in succession, and the cup now becomes their own property. The Sun Inn Chrysanthemum Society was second, and the Chesterfield Chrysanthemum Society third. Fifteen stands were set up in the class for six blooms of the Rundle family of incurved, to embrace two blooms each of Mrs. G. Rundle, Mr. Geo. Glenny, and Mrs. Dixon. This was a lovely display of these dainty flowers, and the competition was open to cottagers. Of the eight prize-winners Messrs. W. Fenwick, T. W. Toulson, and W. Crawshaw were the leaders. Groups were very good, and added very materially to the beauty of the show. In this instance Messrs. J. G. Graves, C. Cook, and Alderman G. Senior, J.P., were the prize-winners.

The trade made a number of charming and interesting displays. Mr. S. W. Seagrave, Cheadless Nurseries, Sheffield, had a beautiful group of stove and greenhouse plants (gold medal); Messrs. Artindale and Sons, Sheffield, a magnificent array of decorative exhibits (gold medal); Messrs. Hiram Shaw and Sons, group of stove and greenhouse plants (silver-gilt medal); Messrs. J. Peed and Sons, a grand collection of Apples and Pears (silver-gilt medal); Mr. C. J. Ellis, group (silver medal); Mr. H. J. Jones, Lewisham, S.E., thirty-six cut blooms, new Japanese Chrysanthemums (silver medal); and Mr. W. Wells, Limited, a small collection of Chrysanthemums. To Mr. M. H. Willford (secretary), Mr. J. G. Newsham (treasurer), Messrs. R. Gascoigne and H. Slaney (trustees), and a very able committee much praise is due for the excellence of the arrangements.

BANBURY CHRYSANTHEMUM SHOW.

THE Countess of Jersey opened the annual Chrysanthemum show at Banbury recently in the presence of a large and fashionable assembly. From the president (Lord North) to the humblest member of the committee all the officials worked hard for the success of the show, which has now become one of the best displays in the Midlands. The Countess of Jersey, in a very graceful speech, referred to the last occasion on which she opened a Chrysanthemum show, which was at Sydney, when Lord Jersey was Governor of New South Wales. She had learnt with great interest that the Banbury Society had been in existence eighteen years, and had done a useful work in enhancing the growth of the "golden flower," and she noticed that the show was peculiarly profuse in that colour. The show was of all-round excellence. The Banbury Challenge Cup, value 25 guineas, for twelve vases of twelve varieties, was won by Mr. F. J. Myers of Charlton House, and in the opinion of the judges they were the finest blooms they had seen, the second in point of excellence being shown by Mr. W. C. Cartwright of Aynho Park, and the third by Mr. A. R. Motion of Upton House. The Mayor's Challenge Cup for dessert table decorated with fruit and flowers was won by the Marquis of Northampton, Castle Ashby, and it was a very close competition between this and the display of Mr. W. C. Cartwright, who won the cup last year. The cut flowers were above the average, and the fruit classes were exceptionally well filled, whilst the vegetables were a record. Certificates of the Chrysanthemum Society were awarded to the winners of the challenge cups. The judges were Mr. W. L. Bastin, Buscot Park, Faringdon, and Mr. W. F. MacDonald of Whetstone, Edgbaston, Birmingham.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi, W.C., on Monday week. Mr. Charles H. Curtis presided. Sixteen new members were elected. The death certificate of Mr. James Tivendale, No. 370, was produced, and the secretary was instructed to pay the amount standing to the late member's credit to his widow, being his nominee. Six members were reported on the sick fund.

ABOYNE HORTICULTURAL SOCIETY.

At the annual meeting of this society, held at Aboyne, N.B., on the 6th inst., a very satisfactory financial report for the past year was submitted by the secretary, Mr. Cowie. It showed a gross income for the year of £108 18s., and a balance to the credit of the society of £50. The office-bearers were elected, Mr. Cowie being succeeded as secretary by Mr. Wilson, The Gardens, Forest of Birse Lodge.

MEIGLE HORTICULTURAL SOCIETY.

At a recent meeting of the committee of this society it was decided to endeavour to arrange for a series of lectures on horticultural subjects during the coming winter. It is hoped that it may be possible to secure a sufficient number of competent lecturers, and the services of a highly-qualified expert from England have already been obtained. The date of the annual show was also fixed. It will be held on August 12.

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BRITISH FRUIT INDUSTRY

A FRUIT GROWERS' UNION.

IN the *Standard* there appeared recently a timely and important letter called "The Fruit Industry: Experiment in Organisation." The article relates to an attempt made by the fruit growers of the Evesham district of Worcestershire to place their industry on a more satisfactory basis, especially in reference to marketing conditions, which has been attended with results that are not only exceedingly gratifying in themselves, but also constitute one of the most hopeful phases of that movement in favour of combination on the part of the agricultural classes that is steadily winning increased favour throughout the United Kingdom. Some of the points brought clearly out in this letter as bearing on the importance of a better and more equitable system of disposing of the produce of the garden and orchard are the following: An area of about 9,000 acres is devoted to the culture of hardy fruit and vegetables in the Vale of Evesham. Experience in the past has proved that where only ordinary crops were gathered in it was hardly possible for the growers to make a living out of the business. The primary reason for this was the defective system then in vogue for marketing the produce, the general practice being to dispose of the crops to local dealers, the dealers selling again to the wholesale merchants, from whom the retail shopkeepers secured their supplies for disposal to the public. The profit which the grower ought to have secured to himself thus went to the middleman for simply acting as a go-between the grower and the merchant.

To remedy this evil some of the largest growers in the district resolved in the spring of the present year to resort to co-operative effort in establishing an organisation which they called the Evesham Growers Association, Limited, in affiliation with the Agricultural Organisation Society. The aim of this body is to reduce the middleman element to the smallest possible dimensions. To this end the growers constituting the combination send their produce to a general depôt, where the sale of it is arranged by a manager, who, communicating each day with dealers in large centres in the Midlands, North of England, South of Wales, Scotland, and Ireland, executes those orders direct, without the intervention of any agent. The manager also sends out a weekly price list to shopkeepers

throughout the United Kingdom, quoting prices at which direct supplies can be forwarded, and a good business has been developed in this way. During the course of the present season the association has disposed of fifty-five tons of fruit to the Wholesale Co-operative Society of Manchester for jam-making alone. Still further, the Evesham society has organised a system under which it sends boxes of fruit direct to the consumer in return for charges which includes delivery free. The greatest care is taken in packing and grading, each fruit being wrapped in a piece of soft paper bearing the society's official stamp. In their rôle as a trading society the association adds to its own supply by purchasing from local growers who are not themselves members. Altogether the amount of fruit and vegetables (mainly the former) sold by the association since it came into existence in the spring is placed at close on 1,000 tons. The article concludes:

"The facts were stated to constitute a noteworthy development in British fruit growing, and one that may undergo still further important development, considering that a movement of only a few months old has already attained so sturdy a growth. It may, in some respects, represent a revolt against the middleman, who, rightly or wrongly, has hitherto been accused of being the chief taker of profits; but it also represents an earnest attempt to organise an important branch of our agricultural (and horticultural) industries on lines that are eminently practicable, and should also be commercially sound."

In our opinion the lead given by the fruit-growing co-operatives of Worcestershire deserves to be followed by fruit growers in every county where fruit is grown on anything like a large scale, and ultimately we hope that a National Fruit Growers' Union, for the promotion and protection of this great industry, will be formed in some convenient and important centre, that would make it easy for the county societies to be affiliated therewith.

It is only by a practical and united combination on these lines that British fruit growers can ever hope to make fruit growing and preserving a great national and prosperous undertaking, as it should be. "Great things from small beginnings spring," and we earnestly hope that fruit growers in other parts of the kingdom will take note of the successful initiation of a union among fruit growers for the disposal of their produce, and hasten to follow their example.

POTATOES TO EAT.

IT is, no doubt, very comfortable to be of "E. L. B.'s" opinion that "whatever is best"—that the vegetables and fruits which fill ninety out of a hundred gardens need no improvement, or at least are "good enough." But it is a disastrous frame of mind as regards progress of the public taste, which has never yet been, and never will be, advanced by mere acquiescence in the popular lack of discrimination. And the question of choice between one vegetable or one fruit and another cannot be shelved by saying "tastes differ," or "everyone to his taste." There is such a thing as good taste and bad taste. In France, for example, the public taste is greatly truer and more refined than in England. Small, high-flavoured Grapes are bought in preference to large-berried, coarser sorts, while it is certain that in England the Chasselas (Royal Muscadine) would have no chance whatever of sale against Gros Colmar. The French preference for yellow-fleshed Potatoes is not a mere foreign superstition, but is due to their undoubted superiority of flavour. "E. L. B." decries them as "close." They are certainly not balls of dry starch—to myself almost difficult to swallow—as are so many of these popular modern white Potatoes. But I have never heard the Ashleaf blamed for its texture, and good yellow-fleshed Potatoes are of the same consistency, to my mind delicious—Chestnut-like, betwixt wax and flour. Undoubtedly the demand for dry white flour comes from the English fashion of regarding Potatoes as sponges for mopping up gravy rather than as vegetables to be tasted on their own merits. The admirable Potato salads one gets in France, and a variety of other Potato dishes, demand Potatoes which will not fall to pieces when cut. The best yellow sorts, when boiled in their skins and peeled afterwards, are excellent taken in the fingers and eaten cold with salt. No white Potato will stand this test. Please "E. L. B." try this without prejudice.

With regard to size of tuber I did not write about the shops, but about the shows. If at the Crystal Palace or any other exhibition two dishes of, say, Up-to-Date were staged—one of moderate, the other of gigantic size—can "E. L. B." deny that the huge tubers would win? And this practice is the more imbecile if the trade dislikes big tubers.

An important point I had almost forgotten about white *versus* yellow Potatoes is this—that the yellow colour denotes not only flavour but the presence of the flesh-forming constituents which are of higher nutritive value than the starch; therefore the white-fleshed craze is actually robbing the poor man of his food!

We should make great strides towards a better public taste if the truth were grasped and acted on that shows are not for the glorification of the exhibitors, but for the education of the nation. If the judges would

resolutely and of one accord refuse prizes to coarse, flavourless produce, it would gradually disappear from the exhibition table and so from the market. Such a change of opinion would force our raisers to aim at quality instead of appearance and bulk, and some of us would live to see the desired cheap, long-keeping Muscat Grape and disease-proof Potato fit to eat.
G. H. ENGLEHEART.

LILIES IN A NORTH COUNTRY GARDEN.

I THINK that a few notes on Lilies grown in Durham may be of interest. My garden is a small one and mainly devoted to Lilies. It has an open exposure facing south-east, and the natural soil is a poor dry hungry loam, so that I am obliged to supplement it by the plentiful addition of peat, river sand, leaf-mould, good rich loam, and old rotten cow manure, the latter applied as a top-dressing in November or December. We suffer much from late spring frosts and from frequent damp dull days, so that the conditions are not very favourable. The Lilies are grown either on low rockeries or on a slightly sloping border. The Martagons take pride of place for hardiness, reliability, and wealth of flowers. The common Martagon does well both in sun and shade, and I have several forms of it varying in colour, spots, and splashes of purple. *M. album* is a lovely Lily, and does very well year after year. I have two forms of it, one with tall stems and very white flowers, the other dwarfer with smaller flowers set closer together and inclined to a creamy white. The tall form is the better. *M. dalmaticum* also does well, some of the spikes this year having between thirty and forty flowers. It varies from light purple to a deep dark maroon, almost black. *Humboldtii*, grown in a mixture of loam and peat, does fairly well; my best spike this year had fifteen blooms, but it is quite eclipsed by the variety *magnificum*, which is a truly magnificent flower. Its handsome blooms of golden yellow, stained and spotted with purple, are very freely produced, and it blooms the first year after being transplanted, which the type does not, requiring two or three years to produce a good spike. *L. Hansoni* this year was very good, and is a sure bloomer if it escapes late spring frosts. Last year the bloom on four clumps was entirely destroyed by the frost which we had at Easter. The bulbs, however, did not seem to suffer at all, and the spikes came up strong early last March. The old *L. pomponium* was the first Lily to bloom here (on June 6) this year, and a couple of strong clumps made a good show of its vermilion flowers. It was three weeks before its near relative, *pomponium verum*, but the latter is much the finer plant both in foliage with its narrow white line and its beautiful bright scarlet flowers. It does well here and increases. *L. pardalinum* is another grand Lily which should be in every garden. It grows very strongly and increases rapidly. Some of the stems here this year were 8½ feet high. It does best in slight shade in a peaty soil, but will do well in full sun in loam if watered occasionally. The varieties *californicum*, *Johnstoni*, and *Michauxi* are all handsome flowers, and easily grown in peat. *L. pardalinum minor*, with smaller flowers but very graceful habit, is a beautiful variety, but does not increase much. *L. Dalhansoni* and *Marhan* both do well, but I do not think these hybrids are any improvement on their parents, and the same may be said of several hybrids of *pardalinum*, but all are handsome and well worth growing. *L. testaceum* and

L. colchicum are both splendid Lilies, sure bloomers when established and left alone, and will stand for many years on the same spot. They are grateful for a good mulch of cow manure every autumn. *L. chalcedonicum* in two forms—one with numerous small black spots and the other unspotted—does very well in full sun and in a dry season. Last year it was poor, but this year has bloomed finely. The clumps should be left alone for four or five years or even longer if doing well, as it is one of the Lilies which resents removal, and in any event it (as most other Lilies) should be transplanted early (beginning of October) if removal is necessary.

South Bailey, Durham. T. MADDISON.
(To be continued.)

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 6.—National Amateur Gardeners' Association meeting.

December 8.—Annual Meeting and Dinner of National Rose Society; National Amateur Gardeners' Association, Annual Dinner.

December 13.—Royal Horticultural Society's meeting at the New Hall, Vincent Square; Exhibition of Colonial-grown Fruits, and of Home, Colonial, and Foreign Jams and Preserved Fruits.

Royal Horticultural Society.—At the general meeting of Fellows, held last Tuesday afternoon, twenty-nine candidates were elected Fellows, including Lieutenant-Colonel E. H. Berkeley, the Hon. Mrs. Horace Darwin, Mrs. Wolley-Dod, the Hon. and Rev. W. C. Ellis, the Right Hon. Herbert Gladstone, M.P., Mrs. Herbert Gladstone, and Mrs. Sebag-Montefiore. The next exhibition of this society will be a show of Colonial-grown fruit, which will be held in the Centennial Hall, Vincent Square, Westminster, on Tuesday and Wednesday, the 13th and 14th inst. As this is the first exhibition of the kind ever held it should prove of great general interest, especially at the present time, when so much public attention is being directed to our Colonies and their capabilities for supplying the home markets. An exhibition of home, Colonial, and foreign preserved and bottled fruits, jams, &c., will take place at the same time, and will afford an opportunity of comparing the products of the various places. This show will be open on both days from 10 a.m. to 10 p.m., and the public will be admitted at 1s. each person.

National Rose Society.—I beg to inform you that the twenty-eighth annual general meeting of the National Rose society will take place at the Horticultural Club, Hotel Windsor, Victoria Street, Westminster, on Thursday next, the 8th inst., at 3.30 p.m., to receive the report of the committee; to pass the accounts; to elect the committee and officers for the ensuing year; and for the transaction of other general business. The twenty-eighth annual dinner will take place at the rooms of the Horticultural Club, Hotel Windsor, Victoria Street, Westminster, on the same day at 5.30 p.m., C. F. Shea, Esq., in the chair. Members and their friends are earnestly invited to attend this pleasant annual gathering of rosarians.
EDWARD MAWLEY, *Hon. Secretary.*

The election of the officers and committee of the National Rose Society.—As a member of this society I have just received, among other papers, one containing the names of the proposed committee for the ensuing year. Members are invited to strike out any name they please, and add others, providing the list does not exceed forty. So far, all is very fair; but when I read that the paper must be presented *in person* at the annual meeting, then it looks to me a very one-sided election, completely giving the power into the hands of such members as can be present. Surely in a society calling itself National some better arrangement than this could be devised, for there are among its 1,000

members many who cannot possibly attend, but who nevertheless could record their vote by proxy or in some other way. This arrangement seems to be designed to keep the affairs of the society in the hands of a "clique," and I strongly protest against it. What we require is a committee thoroughly representative, and this will never be if the voting is delegated to the home members only.—COUNTRY MEMBER.

"Forests, Wild and Cultivated." On Friday evening, the 25th ult., a lecture on this subject was delivered by Dr. Augustine Henry, in the Ewart Library, Dumfries, under the auspices of the Dumfriesshire and Galloway Natural History and Antiquarian Society. Mr. G. F. Scott-Elliott, M.A., F.L.S., president of the society, occupied the chair, and there was a good attendance of the members and the general public. Dr. Henry gave a very able lecture, and close attention was paid during its duration to his descriptions of the characteristics of natural forests and the trees of which they were mainly composed, as well as to the part devoted to the consideration of cultivated forests and their treatment. The lecture was fully illustrated with limelight views, and these were well chosen so as to emphasize many of the points of the lecture. Dr. Henry gave an interesting description of the principles of modern forestry and their application. On the motion of Mr. S. Arnott, seconded by Mr. R. Service, Dr. Henry received a most hearty vote of thanks.

"In Cyderland."—It is always a pleasure to record a successful entertainment when it is given for a charity, but the pleasure is greater when the entertainment itself is praiseworthy. On Thursday evening in last week a musical play called "In Cyderland" was performed by the Hurst and Son Musical Society, in aid of the Gardeners' Royal Benevolent Institution, which will benefit to the amount of £50. The words of the play were written by Mr. R. Carey Tucker, and the music composed by Mr. Edward Sherwood, son of Mr. N. N. Sherwood, the head of the well-known firm of Messrs. Hurst and Son. The Cripple Gate Theatre, in which the play was performed, was crowded, and the audience thoroughly enjoyed the bright music and clever lyrics. Mr. N. N. Sherwood received an ovation when entering the hall, and was heartily congratulated on his restored health. Among those present were Mr. R. C. Smith-Carrington, Mr. E. W. Elliott, Mr. W. P. Atkinson, Mr. G. J. Ingram, and Mr. Alfred Watkins. The composer conducted the orchestra, whose performance was excellent throughout. The honorary secretary of the society is Mr. Washington.

Weather in North Cornwall.—From this district on the 24th ult., a correspondent writes: "We had a terrific thunderstorm with 5½ inches of snow on Wednesday, and 15° of frost last night."—A note from Worcestershire records 25° of frost.

Presentation to a gardener.—A "Former Laurick foreman" sends us the following: Mr. James Begg, having completed his fiftieth year as gardener to Sir Robert Jardine, Bart., at Laurick Castle, substantial recognition of his long career was recently made by a number of the men who have served under him. Pleasant recollections of the time spent with Mr. Begg impelled the many men who have passed through his hands during the long period in which he has been at Laurick to present him on the attainment of his jubilee with some token of their gratitude. In the hands of Mr. A. Dewar (Dunkeld), Mr. J. Troup (Castle Milk), and Mr. McLean (Balgray), the project made such good progress that they were able to present Mr. Begg with a gold watch and chain, while Miss Begg, almost as much respected and esteemed by the workmen as Mr. Begg himself, was made the recipient of a gold brooch. For many years Mr. Begg was a very successful exhibitor. He is such a good all-round gardener that his career is often pointed to as a guide to younger members of the craft throughout Scottish gardens. The completion of his jubilee as gardener at Laurick was an important event to many gardeners in Scotland, and the occasion was seized upon to give some tangible proof of their appreciation of pleasant memories of earlier days and the useful and practical training they received.

Eupatorium arizonicum.—This autumn-flowering Eupatorium is of recent introduction, and a good addition to hardy perennial plants. Also as a pot plant it is worth growing for the market. It grows dwarf and bushy, the leaves small and light green; now they are covered with large umbels of white flowers, which last more than a week in water. It can easily be propagated by cuttings, and should be in the border, rockery, or in large groups in every garden.—WILLIAM MULLER.

Polygonum equisetiforme var. australe.—It seems that this half-shrubby Polygonum does not do well in England or Ireland, but here it is a most useful flowering plant in the autumn. The long, thin branches droop in an elegant manner, and are covered in the autumn with great numbers of small white flowers. This is one of the best plants for dry rockeries. A good place for it is a wall, as it is in the famous garden of Mr. C. Sprenger, where the branches can spread in all directions. For cutting it is very useful. Everyone is filled with enthusiasm who sees this graceful plant cultivated as I have mentioned.—WILLIAM MULLER, *Naples*.

Red and blue flowers for autumn. I have seen no blue flower so good as *Salvia patens*, and no red better than *Pentstemon Newbury Gem* for embellishment of the flower garden in late autumn. I recently saw a bed, some 60 feet long by 8 feet or 10 feet wide, wherein among other things were planted irregular masses of these two plants. Parts of the colour scheme were daring, for the rich blue of *Salvia patens* was side by side with the red *Pentstemon*. The mass of blue was continued behind that of the red, so that the two colours quite ran into each other. Two plants of such bright colouring as these, that will flower throughout the autumn, even into November, are worth planting. *Tropæolum tuberosum*, with its curious red and yellow flowers, is a plant not often seen, yet for clambering over a root or rough piece of wood, or even rough stakes, a patch of it in the border is a pretty feature in late autumn.—Y. Z.

Calanthes and Dendrobium nobile at Buxted Park.—In THE GARDEN of the 12th ult., page 339, Mr. H. C. Prinsep is good enough to give us the benefit of his experience in the cultivation of one of the most useful and attractive of our decorative Orchids. I have grown *Calanthes* in a Melon house, and know several places where this plan is adopted, but I have never yet met with such excellent results. I had the pleasure a few weeks ago of visiting the gardens at Buxted Park, and was perfectly astounded to see such plants. Mr. Prinsep has certainly hit upon the right plan, and he makes his treatment so plain that no one can fail to understand it. Those who wish to grow *Calanthes* well should follow Mr. Prinsep's method. *Calanthes* are not the only Orchids grown well at Buxted Park. At the time of my visit I saw the finest lot of *Dendrobium nobile* it was ever my lot to see; every plant was in perfect health, many of the growths being over 4 feet in length and 3 inches in circumference. I am sure that many gardeners, like myself, would be glad if Mr. Prinsep would give us the benefit of his experience in the culture of *Dendrobium nobile*.—T. B. FIELD, *Ashwellthorpe, Norwich*.

Epiphyllum delicatum.—This very pretty Epiphyllum, exhibited by Messrs. William Bull and Sons at the meeting of the Royal Horticultural Society on the 15th ult., is at present little known, though it was put into commerce a couple of years or so ago. It was imported from Brazil and first exhibited in the autumn of 1898, when a first-class certificate was awarded it under the name of *Epiphyllum truncatum* Princess, but subsequently the question arose whether it was really a variety of *E. truncatum* or a species distinct therefrom. On being submitted to Mr. N. E. Brown, of Kew, that gentleman assigned it specific rank under the name of *Epiphyllum delicatum*, which is now retained. From *E. truncatum* it differs in its somewhat more erect habit and strongly toothed branches, while the flowers are rather less oblique at the mouth of the tube. In

colour they are white, suffused with purple, which colour is deeper towards the centre than at the edges, while just at the entrance to the throat there is a ring of purple-lake, the long, protruding stigma being also of the same colour. The tint of the flowers deepens somewhat with age, as the freshly-expanded blossoms are paler than the older ones. Like the rest of its class, this Epiphyllum can be readily propagated by grafting on to stocks of the *Pereskia*. It is a matter for surprise that the many beautiful forms of Epiphyllum are not met with more often than they are, as the flowers appear at a welcome time. The only varieties of *E. truncatum* honoured by the Royal Horticultural Society have been tricolor in 1864, violaceum in 1869, and that above named. The spring-flowering *Gartneri* and *makoyanum* are specifically distinct from these.—H. P.

Inferior Pears.—I think Pears may well be given more attention; not that I advocate new varieties for mere variety's sake, but by the introduction of really good fruits we could with advantage weed out some of the inferior ones. Soil and locality have a great influence on fruits, and what may be useless in one garden is good in another; but there is no doubt whatever that some of our late October and November Pears are not worth growing. I will give a short list. Very poor Pears are the following: *Beurré Bachelier*, large and a regular cropper, but of very poor quality, and a fruit not worth storage. Another with very similar qualities is *Nouveau Poiteau*. This I find described as a first-rate Pear, but it is not so with us. General *Tottleben* is poor, though in some soils it is much liked, and *Soldat Esperen* is at times second-rate. There are other sorts that do not vary, and a few, but none too many, are always reliable as regards quality. Those who plant fruit for home supplies would do well to study the varieties previously, their behaviour, and last, but not least, their eating qualities. A visit to the nearest fruit gardens would be well repaid.—W. S. B.

Pampas Grass.

The Pampas Grass (*Gynerium argenteum*) shown in the illustration was planted nine years ago. It has been greatly admired by all the visitors here. There is another beautiful plant, and together they are now carrying one hundred and four good plumes. The single specimen has fifty-six.—C. H. FOX (Gardener to Sir E. B. Mansel, Bart.), *Old Catton House, Norwich*.

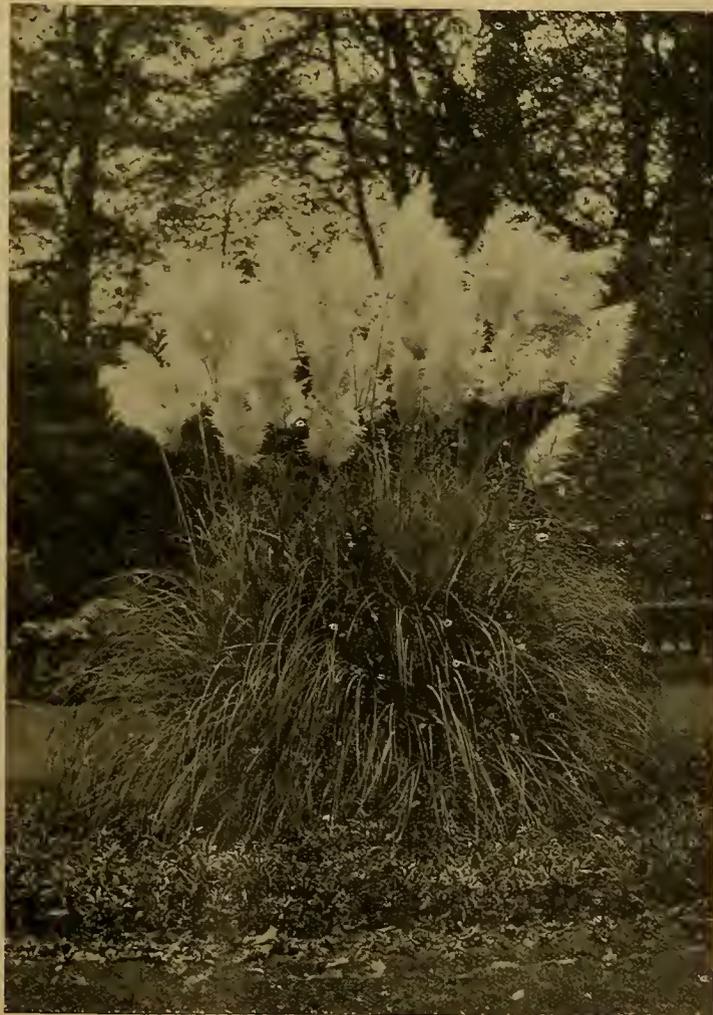
Erica lusitana.

—Although March is the time we look to find flowers of this Heath, the mild weather experienced during October has made it so far forget itself at Kew as to open many of its flowers, several plants in the vicinity of King William's Temple being in almost full blossom. Although one of the loveliest of all outdoor Ericas, it is not often met with in quantity, owing to the fact that it is not so hardy as some of the others, and is apt to be injured or perhaps killed outright during a severe

winter. It is found in Spain and Portugal, and when Nature makes a large bush 6 feet or 8 feet high the branches have a plumose appearance, and are clothed with pretty, bright green leaves. The flowers are pure white, and are borne in great profusion. At Kew it has been out of doors for five or six winters, and has stood well with the little protection afforded by scattering some dry leaves about the roots, and a little hay among the branches on the appearance of frost. For such favoured localities as Devonshire, Cornwall, and South Wales this and other South European Ericas, such as *E. australis* and *E. arborea*, should be quite at home, and would well repay the expense and trouble of planting. A hybrid which promises to become a useful garden plant has been raised between *E. lusitana* and *E. arborea*, and is being sent out by Mr. Veitch of Exeter.—W. DALLIMORE.

Chambre Syndicale des Horticulteurs Belges.—We have the honour to bring to your notice that our committee has decided to commemorate on Sunday, February 5, 1905, the twenty-fifth anniversary of the inception of this society. The nature and details of the ceremonial will be decided later.—H. DE WILDE, *Secretary*.

Phenomenal blooms of Japanese Chrysanthemums.—The new vase class for Japanese blooms, called the Lord Mayor's Vase class, because of the financial support given to the class by the retiring Lord Mayor, at the recent show of the Sheffield Chrysanthemum Society, proved a great success. Competition was keen, and there is reason to believe that, in certain specified instances, better Japanese blooms have never before been set up at any Chrysanthemum exhibition. The two varieties referred to are,



THE PAMPAS GRASS (*GYNERIUM ARGENTEUM*).

respectively, Henry Perkins and F. S. Vallis. The former trio of blooms was in the first prize exhibit of Lieutenant-Colonel Beech, Brandon Hall, Coventry (gardener, Mr. E. J. Brooks). Phenomenal aptly describes their immense proportions. They were of great breadth and depth. Each bloom was made up of broad petals that were quite 8 inches to 10 inches in length. Even form and build characterised each flower, and for this fine English-raised seedling they were ideal. This variety has been in typical condition this season, but nothing like the three blooms exhibited on this occasion. Mr. F. S. Vallis exhibited three blooms of his namesake, that for form and size have never been surpassed. This grower missed the first prize by the smallest possible margin.—D. B. CRANE.

Miniature-flowered Pompon Chrysanthemums.—Why the charming, small-flowered Pompons are not more extensively grown is a mystery. In conversation a few days since with a well-known Covent Garden florist, I was astonished to learn that these beautiful flowers are seldom seen. The flower-loving public appear to be surfeited with the Japanese Chrysanthemums. The small Pompons and single-flowered sorts are very refined, and there is no better material for vase decoration for display indoors. In so many ways these dainty flowers may be used for room decoration, and when not disbudded each spray is a picture in itself. Surely if some grower were to take in hand a few of the better sorts, grow them well, and ultimately send them to market in useful and attractive bunches, a demand would set in for the flowers and prove a success. We always grow a few of the better varieties, and among them Snowdrop, white, and Prinrose League, its yellow sport, together with a pretty bronze sort named Katie Mannings, form a trio that it would be difficult to beat. This season we planted small pieces outdoors, in June, in rows rather close together, and they grew luxuriantly. In late October the plants were lifted and placed in large pots, and after getting established they were arranged in a cold house, where they are just coming into flower. They promise a display until the end of the year.—D. B. CRANE.

Celery Sutton's Superb Pink.—Now that the Celery season is at its height a word in praise of the above variety may not be out of place. Anyone wanting a first-class variety cannot do better than grow it. It is all that can be desired, having a sweet nutty flavour. This is the first season I have grown it, but it has gained preference here over such sorts as Leicester Red, Major Clarke's, Standard Bearer, and Wright's Grove Red.—J. S. HIGGINS, *Rûg Gardens, Corwen.*

The Glastonbury Thorn.—Of all the different forms of the common Hawthorn this is perhaps the most interesting, and certainly the most curious in its behaviour. When speaking of the Hawthorn we usually think of the flowers as having a setting of bright green, but in this case we find a variety braving November's fogs and bearing its white flowers on leafless branches. At Kew at the present time a tree may be seen in the avenue near the south end of the Temperate house covered with buds and expanded flowers; it looks very curious among the other Thorns. Its correct name is *Cratægus monogyna* var. *præcox*, its common name arising from the fact of its having originated in the village of Glastonbury. As a rule the flowers begin to open in November, and continue to expand throughout the winter. It is not usual for a really effective display to be made at any one time, though in the event of very mild and clear weather predominating in November a very good show is made. Last year the tree previously mentioned blossomed exceptionally well in November. It is increased by budding on stocks of *C. monogyna* or *C. oxyacanthoides*.—W. D.

Pernettya mucronata.—The prettiest outdoor effect at Kew at the present time is made by this shrub, three beds near the Azalea Garden being smothered with bright coloured fruits. The usefulness of this plant for general work is apparent from the fact of its being an attractive evergreen, a good flowering shrub, and one of the best that bear ornamental fruit. It has been in cultivation

since 1828; at that time it was introduced from the Magellanic region. When mature it rarely exceeds 2½ feet or 3 feet in height, and is often met with from 1 foot to 2 feet high. In appearance it is neat and bushy, the leaves being small and deep green. The flowers are pure white, and are borne in the leaf axils in May, though blossoms are sometimes to be found quite late in the year. The fruits vary in size and colour on different plants. Some are as large as those of *Symphoricarpos racemosus*, while others are only half as large. The colour varies from white to pink, rose, light and dark red. When planting in groups a mixture of colours should be made, and care should be taken not to plant too thickly, for it produces suckers freely, and if thick in the first place soon becomes a tangled mass, in which case the flowers and fruits are not seen to advantage. It is a shrub that does not care for much disturbance at the roots, and it prefers a rather heavy, cool soil. For beds on the lawn or groups in the front of a shrubbery it is an excellent thing, and is a shrub worth bearing in mind by planters.—W. DALLMORE.

HESPEROCHIRON PUMILUM

YOUR contributor Mr. E. H. Jenkins (page 327), or perhaps I ought to say "W. I.," for he appears to have been the original "medium," has evoked a ghost which rather interests me, and upon the apparitions of which I can perhaps help to throw a little light.

Mr. Jenkins is probably quite right—he is certainly approximately right—in the date he gives (1880) of the flowering of *Hesperochiron pumilum* or *H. californicum* (or both) at the Hale Farm Nursery, Tottenham, for I have come across two of Ware's old catalogues for 1882 and 1883, from the former of which I extract the following description: "*Hesperochiron (sic)*, a new genus of dwarf-growing alpine plants, introduced from the Rocky Mountains. Both species are perfectly hardy, easily grown, exceedingly floriferous, and when seen in masses form very effective objects. Although the two species are somewhat similar, yet they are sufficiently distinct to warrant their admission into the most select collection of rock plants. *H. californicum (sic)* differs principally by its more robust habit, and with flowers and foliage slightly larger. Both species vary in colour from white to dark blue, and are usually found growing in damp situations. A beautiful figure appeared in my catalogue No. 58.—*H. californica*, 1s.; *H. pumilus (sic)* (*Vallarsia pumila*), 1s."

With regard to this description I have only to remark that I suspect the "dark blue" is, or was, "very like a whale," and still more like a nurseryman, and I doubt if these plants were ever "seen in masses," either at Hale Farm or in any nurseryman's or amateur's garden in this country, although the fact that the plant were so cheap is, of course, evidence that they were easily propagated or raised from seed.

IN THE GARDEN for May 5, 1883 (Vol. XXIII., page 399), I find the following note, signed "P. Sewell, York": "*Hesperochiron californicum* is a very dwarf and pleasing perennial. Its flowers are white, slightly tinged with rose towards the edge, much resembling those of a *Convolvulus* in general appearance. Some have distinct dark purple honey lines down the centre of the corolla lobes. The leaves are greyish green and hairy, and most of them paddle-shaped. From one crown will spring over a dozen flowers with as many leaves. The whole plant does not measure more than 6 inches across, nor its graceful flower-stem more than 3 inches high at most, while an expanded flower is 1½ inches across at the tips, its tube being about half as long."

One, or very possibly both, of these plants was sent to me years ago by the late Mr. Wolley-Dod, and one of them certainly survived for several years on my rockery, and, as I recollect, until after he had lost them himself.

I recollect, too, his telling me when he sent them, that in habit and general appearance they were very like *Oxalis acetosella*, and this is just the description I should adopt as my own recollection. The flowers were white with slight red or purple veinings, and, as a matter of fact, they were of little or no real gardening value, although the botanical interest was, no doubt, considerable. The plant had neither vigour nor exceptional beauty, and, here at any rate, though, as I have said, it lived for some years, it never made the smallest increase. The plant belongs, I believe, to Solanaceæ, but as I cannot, unfortunately, refer at once to the "Index Kewensis," I cannot say whether the more orthodox spelling of the name is with or without the "s," or whether the synonym "*Vallarsia*" has any claim to recognition. As to the name, whatever be its derivation or its meaning, if it has any, it will be better, I should say, to consider it as neuter, and to speak of *H. pumilum* and *H. californicum*. Anyway, we must not be asked to have it masculine and feminine at and in one and the same time and line, as in Ware's old catalogue, an error which is, I see, reproduced in Johnson's "Gardening Dictionary," the edition of 1896.

J. CARRINGTON LEY.

THE FLOWER GARDEN.

THE EREMURI.

NOW that the culture of these noble plants is becoming better known they are rapidly increasing in favour, and they form a striking feature in many gardens with their stately stems bearing long racemes of numerous flowers. The genus consists of about twenty-five species in all, most of which are natives of Central Asia, Turkestan being the headquarters of the family, with one from the Himalayas, others from Persia, Siberia, and Asia Minor. Of this number ten have been introduced into cultivation in our gardens at various times, although they are probably not all still represented, some having been lost owing to want of knowledge as to their requirements. Several of the species are really handsome plants, well suited for warm, sheltered positions, among low-growing shrubs or loose-habited plants which are not planted so closely together as to rob them of the sunshine necessary for the ripening of the crowns after flowering. A large group of these plants in flower shown up by a background of fine foliaged trees and shrubs is a sight that would well repay the trouble of producing it. They thrive admirably in rich sandy loam, which should be well drained, as they dislike anything in the way of stagnant moisture. There are numerous stout and fleshy root fibres, disposed horizontally around a central crown, so that the operation of planting the roots has to be carefully performed, as they are very brittle. In planting, a hole should be made sufficiently large to allow of the root fibres being spread out straight in a horizontal direction, with the crown slightly higher, resting on a bed of sharp sand from 6 inches to 9 inches below the surface. Early autumn is the best time for taking up and replanting *Eremuri*, the sooner the better after the leaves have died down and the crowns

have been sufficiently ripened off. It is not advisable to take them up every year, for the less they are disturbed the better they like it. In a few years single plants will develop several crowns, each producing its raceme of flowers. As these would not be so large as those on a plant restricted to a single crown it is necessary to lift the plant and separate them. This may be easily done with care, as they pull apart readily.

Although perfectly hardy, the habit of the *Eremuri* in starting into growth early in the spring exposes them to the late spring frosts, from which they suffer much injury if not protected in some way. Dry ashes placed over the crowns answer the purpose to a certain extent, and sometimes inverted pots or hand-lights are used for covering during the night and removed in the daytime. Shrubs also form a great protection, but should not be so closely planted as to rob the plants of their nourishment. Of those in cultivation only about four species are generally grown in gardens; the others are only met with in botanical collections.

E. Bungei.—A charming plant, growing 4 feet to 5 feet high, with narrow and glaucous leaves and bright yellow flowers, closely set on a rather slender stem. Rather more tender than the other species, it requires a well-sheltered warm situation, where it will form handsome tufts and produce numerous flower-stems. It flowers in June and July. Persia.

E. himalaicus.—One of the hardiest and most useful species we have, with its long racemes of beautiful white flowers on stems which range from 4 feet to 8 feet high. It is rather later in starting into growth, and thus escapes many of the spring frosts. The flowers are densely packed and take up from 2 feet to 3 feet of the upper part of the stem. It is a native of the temperate Himalayas and flowers in May and June.

E. Olgae.—One of the latest in flower, this species has stems about 4 feet high, with rather lax racemes of handsome flowers. These vary in colour from rose to those of a very pale shade of yellow. It is a native of Turkestan, flowering in July.

E. robustus.—This may be called the most handsome species, with its robust stems often reaching to a height of upwards of 10 feet, the upper half being closely set with large rose-coloured flowers in May.

It is one of the oldest species in cultivation, as well as being one of the easiest to manage. A native of Turkestan. *E. r.* var. *elwesianus* is a vigorous form with deeper-coloured flowers. The *Eremuri* are all easily raised from seed, although it takes several years to produce a flowering plant. They also cross readily, and to this fact we owe the existence of several lovely hybrids, the chief of which are:

E. him-rob (*himalaicus* × *robustus*), 8 feet high, with pale pink flowers.

E. Mrs. Reuthe (*turkestanicus* × *Bungei*), pale yellow.

E. Tubergeni (*himalaicus* × *Bungei*), pale yellow flowers on long racemes.

E. Warei.—A late-flowering plant, 4 feet to 6 feet high, with orange-salmon flowers. There is also a white variety of *E. robustus*.

These plants are all worthy of a prominent

place in the best gardens, and will not prove difficult to manage when carefully planted.

W. IRVING.

MICHAELMAS DAISIES.

THE perennial Asters or Starworts are particularly valuable in the autumn garden, since, by the aid of their different varieties, a blooming period of over three months is obtained, and their tender colour scheme affords a relief to the gorgeous scarlets, crimsons, and yellows of the Cactus Dahlias and perennial Sunflowers, while their tints range from the purest white, through soft lavender, to the richest purple, comprising also many forms in which the flowers are of a rosy or pink shade. Amongst the innumerable seedlings raised of late years there are many of high excellence, but no one except the possessor of an extensive garden can hope to grow a full collection, and, therefore, in almost every case, a selection of the best varieties has to be made.

I have found the following seventeen kinds fairly representative, although, doubtless, a change for the better might be made by the substitution of some of the newer varieties for certain of those

dwarf and compact growth, bearing larger blossoms than any of the family, but perfecting these at too late a date to render it a suitable plant for permanent culture in the open in cold districts. In such, however, it may be carefully lifted from the open ground and potted as the buds commence to show colour, when it will expand its flowers in the conservatory; height 2 feet 4 inches, flowers deep violet-blue with golden centre, nearly 2½ inches across.

A. lavigatus, a rather weak-growing form, something after the style of *A. acris*, but scarcely so ornamental, height 3 feet 2 inches, flowers rosy lavender, 1 inch across. *A. patens*, another weak-growing variety, height 3 feet, flowers lavender-blue, 1½ inches across. *A. Perry's Favourite*, a very valuable form, height 3 feet, flowers clear pale rose 2 inches across and very pretty. *A. Perry's Pink*, a much stronger grower than the last-named, height 3 feet 11 inches, flowers deep rose, nearly 1½ inches across. *A. puniceus pulcherrimus*, a noble form, growing to a height of 6 feet 8 inches, and bearing flowers of the faintest lavender, turning to white, crowded thickly on the shoots and 1½ inches across, one of the best for distant effect. *A. Purity*, height 6 feet, flowers white, just over 1 inch across. *A. Robert Parker*, a very handsome



GROUP OF EREMURUS ROBUSTUS IN THE GARDEN OF MR. H. J. VEITCH, EAST BURNHAM PARK, SLOUGH.

(From a photograph kindly sent by Mr. W. J. James, Woodside, Farnham Royal.)

named. In alphabetical order their names are: *A. acris*, a comparatively weak grower, height 3 feet 4 inches, flowers 1½ inches across, very starry in form, with narrow petals of a deep lavender-blue colour. *A. Amellus bessarabicus*, one of the best, especially adapted to small gardens, as it has not the spreading habit of so many of the more vigorous varieties, height 3 feet, flowers purple-blue, 2 inches across. *A. Arcturus*, an almost black-stemmed form growing to a height of 5 feet, bearing lavender-blue flowers 1 inch across. *A. cordifolius* Photograph, a pretty and graceful variety with arching, many-branched shoots 5 feet 4 inches in height, starred with countless small pale lavender flowers rather over half an inch across. *A. ericoides*, one of the best known and most popular of the Michaelmas Daisies, a dwarf plant, with Heath-like leaves, attaining a height of 2 feet 4 inches, and bearing pure white starry flowers half an inch across. *A. Esme*, a low-growing variety 2 feet 5 inches in height, with white flowers 1½ inches across. *A. grandiflorus*, a particularly handsome variety of

variety, 6 feet 9 inches in height, very graceful in growth, bearing pale lavender flowers nearly 2 inches across, which are borne far more sparingly on the many-branched shoots than in the case of *A. puniceus pulcherrimus*, but on that account more valuable for indoor decoration. White, unnamed seedling, an improvement on *Purity* in size and abundance of flowers, height 5 feet 5 inches, flowers 1½ inches across. *A. Tradescanti*, an exceedingly graceful plant, and one of the best for indoor decoration, attaining a height of 5 feet 2 inches, and bearing white starry flowers, with very narrow and widely divided petals about three-quarters of an inch across. The leaves are narrow and the flower-sprays have quite a feathery appearance. *A. vimineus*, another very pretty form, 4 feet 10 inches in height, bearing countless small white flowers barely half an inch across. The heights may not correspond with those attained in other gardens, but in each case the tallest shoot of the plant and the individual flower has been carefully measured. In order to assist amateurs in selection, I give the

dates when each variety was in perfection: A. Amellus bessarabicus, September 6, not entirely out of flower until October 20; A. Esme, September 7, a good companion for the last-named; A. patens, September 9; A. laevigatus, September 15; A. acris, September 16; A. Purity, September 18; A. Arcturus, September 22; A. Perry's Pink, September 24; A. Perry's Favourite, September 26; A. White seedling, September 28; A. puniceus pulcherrimus, September 30; A. Robert Parker, the same date; A. ericoides, October 1; A. cordifolius Photograph, October 5; A. vimineus, October 13; A. Tradescanti, October 30; A. grandiflorus, November 11. Of the varieties named, those most suited by their habit of growth for small gardens are A. Amellus bessarabicus, A. Esme, A. patens, A. laevigatus, A. acris, A. ericoides, and A. Perry's Favourite.
 South Devon. S. W. FITZHERBERT.

TREES AND SHRUBS.

THE HONEY LOCUST (GLEDITSCHIA TRIACANTHOS).

MANY of our deciduous trees show some of their prominent features more during the winter when devoid of foliage than at any other season, and among them must be included this Gleditschia. The formidable spines produce an effect totally dissimilar from any of its associates. In this the spines, many of which are as much as 3 inches in length, are produced in clusters, and borne not only on the young shoots, but also on the main trunk and principal branches of the tree. In an allied species G. sinensis, also known as G. horrida, the spines on the trunk of the tree even surpass those of G. triacanthos, but on the minor branches they are less noticeable. Of G. sinensis there is a weeping form. The Honey Locust forms a decidedly ornamental tree when furnished with foliage, for the pinnate leaves are of a beautiful light shining green, which, especially in its younger stages, is very noticeable. When larger it bears a certain resemblance to the False Acacia (Robinia Pseud-acacia), but as a rule it is more open. The leaves are late in appearing in spring, and in autumn, before falling, they usually change to a bright yellow colour. It is a very good tree for the neighbourhood of smoky towns, particularly if the soil is deep, and not dried up at any time. Unlike most members of the order Leguminosae, the flowers of the Honey Locust are not showy. It is a native of North America. T.

TREES & SHRUBS WITH COLOURED FOLIAGE.

(Continued from page 363.)

ALNUS GLUTINOSA VAR. AUREA AND A. INCANA VAR. AUREA are both golden-leaved Alders, which are useful for planting in the vicinity of water. Their colour is best in spring and early summer.
 ARALIA CHINENSIS VAR. ALBO-MARGINATA.—Of recent introductions this is one of the most striking, the leaves being as large and ornamental as those of the type, while in addition they are prettily variegated with silver. It should be given a prominent place and not cramped for room.
 ARTEMISIA TRIDENTATA.—This is a relative of the well-known Southern-wood, from the Western United States. It is a somewhat rare shrub, growing 3 feet or so high, with small silvery, tridentate leaves. It is useful for a small bed, and forms a good silver patch in a mixed shrubbery.
 ARUNDINARIA.—Although Bamboos are not prominent in this group, there are two which can be included—A. auricoma, a Japanese species, growing from 3 feet to 4 feet high, with golden variegated leaves, and A. Fortunei, likewise from Japan, growing 2 feet high, and having green and white variegated leaves.
 ATRIPLEX.—A. confertifolia, a pretty, compact growing species from the Western United States, with small, silvery leaves, which, when first

starting into growth, have a rosy tinge, and A. Halimus, a tall growing plant, with silvery leaves, are worth growing.

AUCUBA.—The value of the Aucuba is well known, and it and its numerous varieties are invaluable for the garden, especially where ground under the shade of trees has to be covered.

BERBERIS VULGARIS VAR. FOLIS PURPUREIS is a handsome and useful purple-leaved form of the common Barberry.

BUXUS.—Several varieties of the common Box (Buxus sempervirens) have variegated leaves, B. s. argentea, aurea, maculata, and aureo-marginata are of the best.

CASTANEA.—The common sweet Chestnut is represented by C. sativa var. albo-marginata with white variegated leaves, and aureo-marginata, in which case the variegation is yellow.

CATALPA.—C. bigonioides var. aurea is the best of the coloured leaved Catalpas. The leaves are of a deep yellow hue, and keep their colour well throughout the summer. It makes a handsome specimen plant, and stands out boldly in a mixed shrubbery.

CORNUS.—Among the Dogwoods there are several very useful variegated leaved shrubs. C. alba var. sibirica variegata has white variegated leaves. C. a. var. Spæthii is one of the best of all variegated foliage plants, and should be found in every garden, for it is useful alike for shrubberies and specimen beds; for the latter work it is in fact one of the very best shrubs we have. The leaves are golden and green, the green being of two shades. The colour is good from the time the leaves appear until they fall, whether in full sun or partial shade the colour is the same. C. macrophylla variegata, or C. brachypoda variegata as it is sometimes called, is a rare and curious white variegated shrub, but it does not appear to be very hardy when young. C. Mas. var. elegantissima is a small leaved variegated form of the Cornelian Cherry, while another variety of the same thing with larger white variegated leaves is C. Mas. variegata.

CORYLUS.—Coloured leaved Nuts are represented by C. Avellana var. aurea and C. maxima var. atropurpurea, the former having golden leaves and the latter purple ones. The last named forms a good subject for a bed, as it can be kept dwarf by pruning and is always of good colour.

DEUTZIA.—D. crenata var. punctata and D. gracilis var. variegata have golden variegated leaves, but are not worth extended cultivation.

DIERVILLA.—D. florida var. variegata has golden variegated leaves, but is not of much value; D. japonica var. Looymansi aurea, however, is worth growing for its golden leaves, which are very pretty when young.

ELÆAGNUS.—A number of species and varieties of Elæagnus make very handsome and useful shrubs for the purpose under notice. E. argentea has small silvery leaves. E. macrophylla has large leaves, white on the under surface and greyish above, while E. glabra and E. pungens have each varieties with handsome gold and silver variegated leaves. The varieties of E. pungens known as aureo-picta, Simoni, Simoni aureo-variegata and tricolor are specially worthy of note. All make large bushes 6 feet or 8 feet high, with a like diameter.
 W. DALLIMORE.

(To be continued.)

THE ROSE GARDEN.

EXHIBITION ROSES—ANALYSIS 1897—1904.

TEAS AND NOISETTES.

IT is a very different note from that which Mr. Mawley was obliged to use last year, in dealing with this section that he now (see the Journal of Horticulture, November 3, 1904) refers to the Tea Roses exhibited at the Temple Gardens on July 6 last. Last year it was almost a tale of woe, this year it is almost a paean of triumph. Never I suppose in the history of the society's annual show has this section been more numerously represented than it was this year.

A glance at the third column of the analysis gives us the number of times each individual flower was found in the prize-winning boxes throughout the show. Last year the three leading Tea Roses in the analysis were Maman Cochet, Catherine Mermet, and White Maman Cochet, exhibited respectively in thirty-three, twenty-nine, and twenty-six winning stands; this year the three leaders were exhibited no less than seventy-five, fifty, and sixty-one times respectively, or rather more than twice as often, due not so much to any increase in the number of classes as to keener competition throughout.

TEAS AND NOISETTES.

(TABLE II.)

Position in Present Analysis.	Average Number of Times Shown, 1897—1904.	No. of Times Shown in 1904 at the N. K. S. Show, Temple Gardens.	Name.	Date of Introduction.	Raiser's or Introducer's Name.	Colour.
1	50.5	75	White Maman Cochet	1897	Cook	White, tinged lemon
2	49.0	50	Maman Cochet	1893	Cochet	Deep flesh, suffused light rose
3	47.0	61	Mrs. Edward Mawley	1899	A. Dickson and Sons	Pink, tinted carmine
4	35.4	32	The Bride	1835	May	White, tinged lemon
5	33.6	20	Catherine Mermet	1869	Guillot	Light rosy flesh
6	29.1	34	Comtesse de Nadaillac	1871	Guillot	Peach, shaded apricot
7	28.7	18	Souvenir de S. A. Prince	1889	Prince	Pure white
8	27.2	19	Mme. Cusin	1881	Guillot	Violet-rose
9	25.9	24	Immaculate Pirola	1878	Mme. Ducher	Creamy white
10	25.5	31	Medea	1891	W. Paul and Son	Lemon yellow
11	25.3	26	Bridesmaid	1893	May	Bright pink
12	24.4	15	Mme. Hoste	1887	Guillot	Pale lemon yellow
13	24.0	25	Souvenir d'Elise Vardoo	1854	Marest	Cream, tinted rose
14	23.2	28	Muriel Graham	1896	A. Dickson and Sons	Pale cream, flushed rose
15	23.2	8	Souvenir d'un Ami	1846	Belot-Defongère	Pale rose
*16	20.0	20	Souvenir de Pierre Notting	1902	Sonpert et Notting	Apricot yellow, shaded orange
17	18.4	18	Mme. de Watteville	1883	Guillot	Cream, bordered rose
18	17.7	9	Maréchal Niel, N.	1864	Pradel	Deep bright golden yellow
19	17.0	8	Cleopatra	1589	Bennet	Creamy flesh, shaded rose
20	13.7	13	Ernest Meiz	1888	Guillot	Salmon, tinted rose
21	12.0	10	Marie Van Houtte	1871	Ducher	Lemon yellow, edged rose
22	12.6	7	Caroline Kuster, N.	1872	Pernet	Lemon yellow
23	12.5	8	Hon. Edith Gifford	1882	Guillot	White, centre flesh
24	12.1	1	Anna Olivier	1872	Ducher	Pale bluff, flushed
25	11.7	14	Golden Gate	1892	Dingee and Conard	Creamy white, tinted rose
26	11.4	8	Princess of Wales	1882	Bennet	Rosy yellow
27	10.1	6	Niphetoa	1844	Bongère	White
28	8.7	0	Rubens	1859	Robert	White, shaded creamy rose
29	8.4	15	Ethel Brownlow	1887	A. Dickson and Sons	Rosy flesh, shaded yellow
*30	7.0	7	Mme. Jules Graveaux	1901	Soupert et Notting	Flesh, shaded peach
31	5.7	3	Jean Ducher	1874	Mme. Ducher	Salmon yellow, shaded peach
32	5.4	2	Mme. Bravy	1848	Guillot	White, flushed pink

* New varieties whose positions are dependent on their records for the 1904 show only.

That grand Rose White Maman Cochet breaks all records with a total of seventy-five blooms. I have often referred to this sort as the finest Tea Rose in cultivation, and last year, when it had to be content with third place, I remember stating that in my opinion it was *facile princeps*. I have not had long to wait to see it occupy the place of honour. That other fine Tea Mrs. Ed. Mawley was to be found in no less than sixty-one prize stands, followed by Bessie Brown (fifty-four), Mildred Grant (fifty-three), and Maman Cochet (fifty); the sixth place is filled by Mrs. John Laing with a total of forty-five, so this year the Teas easily beat their cousins the Hybrid Perpetuals and Hybrid Teas. For the first time I think in these tables The Bride takes precedence over her parent Catherine Mermet, and I note that Comtesse de Nadaillac comes back with a rush. Last year with a total representation of eleven flowers only she nearly lost her place in the first half dozen, but this year, with an appearance in the boxes of successful exhibitors of rather more than three times as many, she makes sure of it again.

Medea, which found its way last year in a most extraordinary fashion into nearly every prize stand, and in consequence was the most frequently exhibited Rose in the whole exhibition, has, compared to former records, again done well, and is steadily creeping up the table. It is evidently one of those Roses, like Lady Moyra Beaulerc in the Hybrid Perpetual section, that is improving in constitution, instead of, as too many do, deteriorating, though perhaps the cases are hardly similar, as although Lady Moyra received a card of commendation in 1895, it was not put in commerce till six years afterwards, or ten years later than Medea.

It is interesting to notice while touching on this point of date of introduction that good Teas are evidently much scarcer than the Hybrid Teas or Hybrid Perpetuals, for while representatives of the "early forties" are still to be found in their table, if you take an equal number of the Hybrid Perpetuals (namely, the first thirty-two), we get into the sixties before we reach the earliest date. Another point worthy of notice is that, with the exception of seven, all the Teas are of foreign raising, while in the other table the first thirty-two are equally divided between home and foreign productions. Perhaps Messrs. Alexander Dickson will kindly note.

There are only two new Teas of recent introduction mentioned in the analysis, namely, Souvenir de Pierre Notting and Mme. Jules Graveaux, both from Messrs. Souper et Notting, the latter, although the older Rose, being the least known of the two. It is called, I presume, after one of the family of that well-known rosarian M. Graveaux, who is reputed to have one of the finest collections of Roses extant. I have not yet grown the Rose, but I saw some plants of it at Colchester this autumn that looked very promising. Of Souvenir de Pierre Notting it is not necessary here to say much; it will, I think, find its way into the first dozen, but although it is called a yellow Maman Cochet, it is much thinner than either of the flowers bearing that name; it is wonderfully free flowering, makes an excellent standard and is a welcome addition to this, the most beautiful of all the various sections of the tribe Rosa.

The date of the show or earliness or lateness of the season can always be told by the place in the analysis of certain Roses. Anna Olivier is an excellent case in point. Last year Anna Olivier was to be found in no fewer than thirty-one stands, this year she made her appearance in one only; the non-appearance of her relation, that other beautiful new Tea Lady Roberts, in the table is thus accounted for. Rubens, a still earlier flower, was evidently all over, as not a single bloom of it was exhibited, whereas last year (1903) it was present in no fewer than twenty-two boxes.

I make these comparisons of the two years for the purpose of showing that it is exceedingly dangerous to take the record of one year only, and it is one of the features, and a great feature, in this analysis of Mr. Mawley's that we have combined in the tables the results of the last eight years, so that an early season is balanced by a late one, a late date for the exhibition by an early one, and the happy medium

or true average, as Mr. Mawley calls it, is arrived at, and this it is which no doubt has caused these tables to be recognised as such an excellent guide by all Rose growers for exhibition.

I have referred to the scarcity of new Teas. It is just possible that some of those new Roses sent out more for garden decoration than for exhibition may with high culture come good enough for the latter purpose. There are three that I have grown this year that strike me as likely to be worth trying—Mme. Jean Dupuy, Mme. Vermorel, and Général Gallieni. The first was sent out in 1902 by P. Lambert, and is a pale flesh and yellow, with the edges of its petals distinctly bordered with rose, after the style of the old Homere, and is remarkably free flowering. It has been exhibited frequently during the year, a very fine bunch of it forming the centre of Messrs. Frank Cant's first prize stand for garden Roses at the autumn show of the National Rose Society, where it was much admired. Mme. Vermorel is a mixture of yellow and buff quite distinct, a good grower, making a fine standard, and which has given me many fine flowers this autumn. Général Gallieni is the oldest Rose of the three, but one that does not seem to have found its way into most of the catalogues or yet into general cultivation. When good it is very fine, but the flowers if not disbudded are on the small side; its colour is not easy to describe, outside of petal bright cerise, inside reminiscent of Maman Cochet, deepening towards base of petal to copper. It is one of the Nabonnand Roses, all of which I know make better bedders than they do exhibition flowers, still I have had some good blooms, and I am sure it is worth trying. The remaining tables of Mr. Mawley's interesting analysis I will deal with later.

Brantwood, Balham, S.W. H. E. MOLYNEUX.

HINTS FOR THE PRESENT SEASON.

(Continued from page 249.)

SINGLE PLANTS ON LAWNS OR IN BORDERS.

PREVIOUS to planting Roses singly on lawns or in borders a hole should be dug for each, 18 inches square and 18 inches deep. The soil removed from the holes should be well mixed with one-fourth of its quantity of well-decayed manure before being restored to them. If the soil be found poor and unsuitable, better soil from another part of the garden or some turfy loam should be substituted. No grass should be allowed to grow within at least 6 inches of the stems of Standard Roses planted on lawns.

CLIMBING OR PILLAR ROSES.

For climbing and other Roses of very vigorous growth the hole prepared for their reception should be 2 feet square and 2 feet deep, and care be taken that the soil be of a suitable character and well enriched with manure. For it must be borne in mind that such Roses require much more room than those which are pruned back every year, and in most cases are intended to occupy the same positions for many years to come. Therefore, any extra care and attention bestowed on the planting of strong-growing Roses like those referred to will, sooner or later, be well repaid.

STAKING STANDARD ROSES.

As the planting proceeds each plant should be secured to a firm stake of some kind. In order to avoid damaging any of the roots the stakes should be driven firmly into the holes prepared for the reception of the plants before planting them. Dwarf or bush plants do not need staking, but, to prevent injury from high winds, all long growths should be shortened previous to planting.

THE LABELLING OF ROSES.

Where there is only one plant of any variety a permanent label with the name of the Rose either written or printed upon it should be attached to a small stake placed near it, and not to any part of the plant itself; but when several plants of the same variety are grouped together, or follow one another, labels will only be necessary at the beginning of each such group or row.

WINTER PROTECTION OF DWARF TEAS AND NOISSETTES.

All kinds of Roses should be planted in the way previously described. Teas and Noisettes and

other tender sorts, however, require, after planting, some protection to be given them, or they will be liable to injury should an unusually severe frost afterwards set in. Fortunately, dwarf plants may be readily protected by drawing the soil over the centre or crown of them to the height of 3 inches or 4 inches. This will be found an excellent method, for, except in extreme cases, the plants are in this way saved from serious damage, although the exposed portion of their shoots may be destroyed. If further protection be required, Bracken or straw may be placed loosely among them.

WINTER PROTECTION OF STANDARD TEAS AND NOISSETTES.

In most winters the insertion of Bracken in the heads of Standard Roses, or tying their shoots to a secure central stake and thatching them with straw or Bracken, will be found to answer excellently.

THE AURICULA IN DECEMBER.

AT this season of the year very little can be said on the work which can be done amongst Auriculas; they are at rest. Pick off decayed leaves, and give plenty of air by night and day. Frost at this time of the year will do no injury. It may not be out of place at this "dead" season to talk of the important points of soil and potting, on which subjects opinions greatly vary.

As regards the proper soil in which to grow Auriculas, no "royal road" can be pointed out, nor an infallible compost recommended in which alone they will thrive. Each grower has plans more or less of his own. One thing, however, is pretty freely acknowledged, and that is the mysterious compounds we read of as being used by our forefathers are discarded for ever. Simple and easy methods appear to be quite successful. In the first place a supply of yellow turfy loam must be obtained and laid up for six months or more, turf side downwards, with a small quantity of half-rotten stable manure between each layer. In preparing the soil for the potting bench do not break it up too fine. If some of the turves are not sufficiently decayed cut into strips with a long knife (an old table knife), and break with the fingers into pieces the size of Walnuts. Do not use soil which has been passed through a sieve. Take two-thirds from the heap of soil above described, and add to it one-third in equal parts of rotten manure and leaf-mould. When taken to the potting bench for use silver sand or crushed oyster-shells should be added in suitable quantity to keep the soil open. The early autumn would be a good time to lay up the soil for use the following spring and summer.

The time for repotting is an open question. Some advocate just after the blooming season, others a later date. My experience is that the state of growth of the plant must determine this. Strong-growing plants which have filled their pots with roots can be potted early; but in the case of a delicate grower which has not made much root action it will be better to defer the operation till early in August. More or less of the underground stem may be found decaying. It must be cut back, leaving a sound part with the freshest and youngest fibres to keep the plant in perpetual growth, but how far each stem may be shortened must be left to observation and experience.

Good drainage is an absolute necessity. Cover the hole in the pot with a piece of curved crock with the arch of it upwards, and about 2 inches of smaller pieces above it, then some turfy fibre or coarse Cocoanut fibre, then some of the rough pieces of potting soil. This will prevent any of the fine mould getting to

the crocks and spoiling the drainage. Be careful not to overpot any plant, and, above all, pot firmly and deep enough, so that no naked stem be above the soil. The plant should be in the soil quite up to the first leaves, and the roots must be thoroughly examined, decayed ones removed, and also any *Auricula aphis* washed or brushed away. Great care must be taken in removing decayed leaves and stalks of autumn blooms. The latter must not be pulled out until they come freely from the socket. Should any traces of decay appear it can be arrested by the application of powdered quicklime.

Bishop's Stortford.

WILLIAM SMITH.

LATE PLANTING OF DAFFODILS.

OF course the early autumn is the best time for planting Daffodils, but it is not too late even in January. I know this from experience. Last January I planted 4 cwt. of bulbs, *Horsfieldi*, *Johnstoni*, *Queen of Spain*, *Emperor*, *poeticus ornatus*, and *Leedsii*, and very few failed. The display was delightfully fresh and quite unexpected. The grouping of Daffodils shown in the illustration is very effective, but the bulbs were put in during October. NARCISSUS.

ROUND ABOUT A GARDEN.

SUBURBAN GARDENS.

I HAVE seen a lot of suburban gardens lately, among which a violent epidemic of "doing up" seemed to be raging; and it was very interesting to see how one good garden always makes many. There are some streets with only the dingiest, most miserable gardens down the whole length

of both sides of the way; and there are others, with precisely similar houses, in which every garden on both sides is a pattern of neat and effective use of a small space for purposes of display. And there are yet other streets where most of the gardens are indifferent, with the exception of a group of three or four, perhaps, in the middle and one or two in other places. It is all a matter of neighbourly rivalry. It may be that in the whole of a long street, whose houses are tenanted by hard-working City men, living to the margin of their incomes and finding their pleasures in other things than gardening, no one has shown his neighbours what can be done with a small strip of ground between iron railings. So all the gardens gradually sink to the same level, with some gapped Box edging, a grimy Laurel bush or Holly tree, a few clumps of *Chrysanthemums*, perhaps, and a lot of gravel.

CONTAGIOUS HORTICULTURE.

Presently, however, to such a street will come a new tenant, whom surprised neighbours will observe at times discussing garden politics with the local nurseryman. During the winter they will note the contrast between the extreme neatness of the newcomer's flowerbeds and the green vitality of its new evergreens contrasted with the griminess of their own sparrow-haunted Lilac bush or Holly tree. It is his "fad," they say, as they hurry by to catch their train to town. But the first real shock comes in spring, when the newcomer's garden suddenly bursts into a conflagration of *Crocuses*, with *Tulips*, *Hyacinths*, and *Narcissi* to follow. From either end of the street the new garden shines "like a jewel in an *Æthiopian's* ear." The men, who have to pay the gardener, and except on Sundays only catch passing glimpses of their front gardens in the morning and evening, might be still content to

say that this was their neighbour's "fad," and leave it at that. But almost every villa contains at least one woman of the family; and the beauty of the neighbour's garden, contrasted with the squalor of her own, stirs her soul. So the local nurseryman prospers as the street breaks out into spots and blotches of colour, until by late summer it is in eruption of *Geraniums* and *Calceolarias* from end to end. So quickly, too, do local traditions take root that in a certain row of villas in a Thames-side suburb, where a single resident clings conservatively to the Lilac-bush-and-gravel style of garden, all the neighbouring children firmly believe that he murdered his wife twenty years ago and dare not have the garden dug up for fear her bones should be found. And only a quarter of twenty years ago all the gardens were as bad as his!

GARDENS ALL ALIKE.

Next to this epidemic contagion of gardening the feature which most attracts the attention of a wanderer in suburbs is the amazing sameness of type in villa gardens. In spite of the thousands of beautiful and hardy plants which are available you may go down street after street of "villa residences" and find that collectively there are more gardens than there are kinds of plants grown in them, the same few familiar sorts being shuffled and reshuffled in endless monotony. This is partly due, no doubt, to lack of knowledge on the part of residents, but chiefly to the limited stock of the local nurseryman. All his clients know *Geranium*, *Lobelia*, *Calceolaria*, and *Marguerite* by name and sight, and if they are satisfied why should he tempt them to stray outside the beaten path of common demand and easy supply?

LOCAL EXCELLENCE.

But not all suburbs are alike. As you can trace the effect of a single well-kept garden in brightening up a whole row, so, in a more diffusive way, you may detect the influence of neighbouring public gardens upon a whole locality. In the suburbs round Hampton Court, for instance, evident knowledge is displayed in cottage gardens of the fact that surplus bedding plants are distributed to the public gratis, while at Kew many small gardens are peculiar for the unusual and rare character of the plants which they contain. It needs no clairvoyance to guess that the high brick wall which runs down the other side of the road encloses a botanic garden. Ealing, again, is the type of another suburb where there is great variety in the kinds of plants grown in the villa gardens, although after a time you find that the variety can be classed in patches. This comes, I take it, from the fact that Ealing is essentially a suburb for leisured folk—retired Anglo-Indians and the like—who all have time to consider their gardens, and thus give



GROUPING OF DAFFODILS UNDER OLD TREES.

employment to rival nurserymen, who compete against each other in the variety and novelty of the horticultural goods which they supply. The result, however, is distinctly pleasing.

E. K. R.

NEW AND RARE PLANTS.

CAPSICUM ANNUUM VAR. CONOIDES.

THIS is a very showy plant, a variety of the common Capsicum, bearing a large number of reddish fruits displayed to the best advantage. It grows some 2 feet high, and develops some 2 feet across. The common Capsicum is not a plant to be despised for home decoration, and it makes an attractive group in the greenhouse when well fruited, therefore this new one will be welcomed. Plants in fruit are quite an agreeable change from plants in flower, and they have, too, a distinctive beauty. This new variety was exhibited by Gurney Fowler, Esq., Glebelands, South Woodford, before the Royal Horticultural Society on the 15th ult., and received an award of merit.

undoubtedly delicate, and wants a warm, peaty soil. It really does best in a southern aspect protected by a wall. Then it is very fine, growing 6 feet or 7 feet high, and producing a dozen of its beautiful transparent white flowers at once, from the end of June to the beginning of October. You will see by this, too, that the *Romneya Coulteri* is rather large for a 7-foot or 8-foot border. My experience of the medium-sized gardens, say, of three acres all told, is that borders cannot be allowed more space, at the most 9 feet or 10 feet. Of course, I am allowing that for plants. Any shrubs planted as a hedge must not be allowed to trench on the ground set apart for smaller subjects.

Well, we will suppose that the white section No. 10 and the blue section No. 11 are both

advantage, and are fairly hardy in the South and Midlands, but they really succeed best on the south and west coasts. Cut them down when their flowering time is over, and cover with coal ashes. The *Potentillas Louise van Houtte* and *Elizabeth* are a fine red, but there are others besides these to select from. The *Geums* are mostly too scarlet, but the red *Avens* (*Geum sylvaticum*) might do. Do not be afraid of planting *Heuchera sanguinea*, which, as Mr. Robinson says, is the most beautiful of all the *Heucheras*. Some people find it disappointing, but if it is properly handled it is all right. There are many plants that want humouring, and *Heuchera sanguinea* is one. If it declines to flower the second year take it up in July, cutting pretty close round it with a sharp spade, and put it into a corner

COLOUR IN THE BORDER.—VII.

WE now come to sections 10, 11, and 12, and when we have dealt with these the colour scheme we have proposed for the mixed border is virtually completed. In section No. 10 white is again repeated, and by now, I fancy, our readers will have discovered several valuable additions overlooked by me; they, too, are by far the best judges of what plants to employ and what to avoid, for I cannot possibly dictate to them more than I have done already the course they are to pursue, knowing neither the wealth nor length of the borders, soil, position, or climate—all factors of the greatest importance in the choice of material. I, all through this series of articles, have been working in the dark in these respects, and have only humbly suggested some possible combinations.

Many of the plants mentioned I am growing myself, and I find them extremely valuable if kept in proper order. The soil in my garden is very fertile, and things increase rapidly. All the strong-growing herbaceous plants, like the *Achilleas* and *Galegas*, must be kept in check and properly staked, and if this is done there is no reason why they should not be employed in a border only 7 feet wide. I do not think, however, that I have advised the use of *Galegas* in the colour scheme. I did not mention the beautiful *Romneya Coulteri* or white bush Poppy, which would be charming among your white flowers, because it is



CAPSICUM ANNUUM VAR. CONOIDES.

finished according to the taste and fancy of the gardener, and we will pass on to red, which must now be used in contradistinction to scarlet, employed in section No. 2. I am afraid we shall find that red flowers are scarce, and this is one of the things that makes the difficulty of colour bedding so complicated. You can only have for your background Dahlias for the autumn, and there are some fine Phloxes, Hollyhocks for the late summer, and early-sown Sweet Peas, treated as before suggested, *Coccinea* and *Splendour* being very good tints. The deep red Oriental Poppy will come next. These Oriental Poppies must not be allowed to grow too large, and must be carefully staked, but of this more anon. Again, we have some red Phloxes from 2 feet to 3 feet high, *Torpilleur* being one. *Fuchsia coccinea* and *F. globosa* may be grown with

for a bit, and replace it in the autumn, when it will probably bloom better than ever.

A correspondent in THE GARDEN of the 5th ult. criticised one of this series of articles, and recommends *H. brizoides gracillima* instead of *H. sanguinea*. I do not know the variety, but it may be worth trying. This correspondent also recommends *Arundo Donax versicolor* instead of the old-fashioned Ribbon Grass. No doubt it is far handsomer, but I have always understood it to be only half-hardy. In the Berkshire valley, where lie my own borders, the early and late frosts are so destructive I dare not employ too many delicate subjects. The same reason holds good against planting *Ostrowskia magnifica*. As far as possible I use only hardy plants, reserving the more fragile ones for the snug sheltered corners. But to continue the list of red

flowers we must have Cannas (and some have red foliage), Pæonies (*P. rubra* and the little *P. tenuifolia*, besides many others), *Chelone barbata* (for late summer and autumn), and *Centaurea montana rubra*. Among the *Salvias*, so excellent for autumn flowering, there are two red varieties, *Salvia pratensis rubra* and a pretty dwarf sort called *Salvia porphyranthera*. These, however, are delicate, and require lifting at the first sign of frost, and housing for the winter. Then there is *Pyrethrum roseum* and *P. roseum plenum*; a dark crimson *Lychnis (Flos-cuculi)*, which is really a Ragged Robin, quite a pretty border plant. There are fine blood-red *Antirrhinums*, hardy *Chrysanthemums*, though the deep red tone is scarce, *Sweet Williams* for the choosing, and, for Carnations, several fine red border varieties, but why look further than the delightful real old Clove. *Anemones* of every shade can be had, and the double velvet *Primroses* which grow so well in "John Bull's other Island," besides the hybrid single varieties, *Tulips*, and, for the foreground, *Hepaticas*, single and double, and quilled *Daisies*.

AUGUSTA DE LACY LACY.
(To be continued.)

GARDENING OF THE WEEK.

FLOWER GARDEN.

ROSE STOCKS.

FOR bush Roses the Manetti is the stock most used. It produces a quantity of fibrous roots, and where the soil is light Roses budded on it are more likely to thrive than when grown on the Briar. The Manetti is increased by cuttings. For standard Roses the Briar is used, and the present is a good time to collect them. The wild Briar varies greatly in growth, and it is those which have smooth skins and but few prickles that are the best. It is not wise to keep them out of the ground longer than is necessary or the roots will shrivel. After trimming the roots and reducing the tops the Briars should be planted in deep rich soil, allowing 18 inches from plant to plant, and 3 feet to 4 feet between the rows. Plant firmly, and apply a mulching over the roots.

FALLEN LEAVES, &c.

Now that the leaves have all fallen a general clearing up should be made. The necessary quantity for hot-beds and leaf-soil should be carted to their respective places. The fronts of the shrubberies must be raked clear, but at the back and where they are not unsightly, and there is no danger of their blowing about, the leaves should be allowed to remain; they will gradually decay and feed the shrubs. All fallen or wind-blown leaves should be removed from the rocky, or as they decay there is the danger of rotting the smaller-growing plants.

While the weather continues mild any planting of trees and shrubs may still be done; but at this time of the year a mulching is more necessary than when the planting was done early in the autumn. Should hard weather set in rabbits sometimes gnaw and eat plants which are usually considered to be rabbit-proof, and it is often worth while to stretch a piece of wire-netting around any choice shrubs as a temporary protection. *Michaelmas Daisies* are amongst the herbaceous plants which pay for annual replanting, and, weather permitting, this may still be done, selecting the outer growths for that purpose.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

LILIES OF THE VALLEY.

UP to the present time the supply of these flowers has been kept up by forcing retarded crowns, but as the season advances, and the flowers from natural crowns are of a much better quality, a

batch of the latter should at once be placed in heat. It is not difficult to have them in by Christmas, as in nineteen to twenty-one days the flowers should be ready for cutting. Pots are best in which to force the earlier batches, the 4½-inch accommodating fifteen to eighteen crowns. The roots of the Lily crowns should be made firm among soil of a sandy nature, and at no time should this be allowed to become dry or the crowns will shrivel and fail to start into growth. Plunge the pots their full depth in boxes containing Cocoanut fibre, sifted leaf-soil, or stable manure, and place them on the hot-water pipes, where a temperature of 75° to 80° can be maintained. Finally the crowns should be covered lightly over with Moss, which must be kept moist. Seldom does the foliage accompany the flowers of the earliest forced batches; but with care this can be accomplished if proper attention to removing the crowns from the plunging material be given, afterwards placing them on a shelf near the glass immediately the flower-buds are discernible. Finally, the flowers are larger and last better when they open in an atmosphere that is kept buoyant by the judicious admission of fresh air.

LILACS IN POTS.

The earliest batch of these has just been put in a house the temperature of which does not for a few days range higher than 45° to 50°. In such a position the hardened stems of the plants, as well as the flower-buds, will develop. Before they burst into flower the plants require a temperature of 55° to 60°, with a little air to encourage the flowers to open freely and satisfactorily.

FORCING PLANTS GENERALLY.

To Roses that are just bursting into growth afford a little sulphate of ammonia in a liquid state, prepared at the rate of one tablespoonful of the sulphate to a gallon of water; one or not more than two doses from start to finish will be quite enough. Green-fly, with which the young growth at this time is frequently attacked, must be kept in check by occasionally fumigating with XL, and dust lightly sometimes the growth with flowers of sulphur to keep down mildew. Admit air judiciously. Sheep and cow manure, liquid, in a diluted form should be given to the roots of *Arum Lilies*, and their leaf-stalks prevented from becoming drawn and weak by the careful admission of air. *Freeseias*, to keep them dwarf, must also be given a position near the glass. The flower-buds of the lovely pink-flowered *Prunus triloba* frequently go blind from no other cause than placing the plants in a high temperature at the start; but if treated as recommended for *Lilacs*, they seldom fail to flower satisfactorily.

ZONAL PELARGONIUMS.

The atmosphere of the structure in which these plants are flowering can, by affording fire-heat with air, be kept dry and buoyant, and a temperature of 50° or 55° be maintained. One thing essential to the health of the plants is care in giving water to their roots. Stimulants are scarcely necessary; highly diluted guano and soot-water are the best.

J. P. LEADBETTER.

Tranby Croft Gardens, Hull.

FRUIT GARDEN.

PINES.

THE fruiting Pines should have a night temperature of 68° to 70°, according to the weather. Cover the pits at night with mats or other material, as by this means it is more easy to maintain the requisite temperature, and it reduces the necessity of hard firing. Keep the bottom-heat steady at 85° to 90°, and carefully examine the plants once a week to see if they require water. When the fruits are half coloured no more water will be necessary until they are cut. Sprinkling the surface of the beds and damping the paths will supply sufficient moisture at this season of the year. If the plunging material near the hot-water pipes is dry thoroughly moisten it.

EARLIEST QUEEN PINES.

Those plants intended for starting early next month have been resting. The plunging material

near the pipes should be moistened rather than water the plants for a few weeks to come. The pits they are intended to occupy should be well washed and cleaned, and the plunging material prepared for their reception. Select those plants thickest at the base of the stem and having open centres; they are the most likely to show fruit before making fresh growth. Remove a few of the short leaves at the base and a little of the loose surface soil, and top-dress with good fibrous loam, adding a little bone-meal and soot. Make it firm. As soon as the temperature of the plunging material has decreased to 85° or 90° put in the plants about 2 feet apart. Do not allow the bottom-heat to exceed the latter figure. Give the plants a good soaking of tepid water when starting, and keep the house fairly moist. A night temperature of 65° is high enough to commence.

SUCCESSION PINES.

These should be kept quiet some time yet. Carefully examine plants that are in small pots, and plunge near the hot-water pipes, and water if necessary. Ventilate on all favourable occasions to prevent a soft growth.

FIGS.

If the early trees are expected to supply ripe fruits in April, no time should be lost in plunging them in a light position in a good depth of fermenting material. Syrioge them daily about midday with tepid water. A night temperature of 50°, with a rise of 5° to 10° during the day, will be high enough. All permanent trees in succession houses should be pruned, cleaned, and got in readiness for starting, the borders top-dressed with good loam, wood ashes, mortar rubble, and bone-meal, and made firm. A moist atmosphere is necessary to start the trees, and as they require plenty of water good drainage is essential.

Impney Gardens, Droitwich.

F. JORDAN.

KITCHEN GARDEN.

MANURE HEAPS.

THE preparation of manure is at this period a most important work, and should be carried out without delay. Few gardens have too much cropping space, and where several crops are produced each season the land must be liberally dealt with. For most gardens where the soil is not heavy good farmyard manure is the best. On very heavy and clayey soils this should be lightened by incorporating leaves and stable litter. If the supply can be got ready and prepared in the manure court so much the better. It is advantageous to turn over a full supply at once, making it into a large heap, the larger the heap and the more firmly it is packed together the better it will be. If the manure is light it should be frequently turned and damped. Along with the supply all garden refuse that will decay may be mixed, except weeds that have run to seed. The supply should be allowed to lie for several weeks until it is well decayed, but frequent turning will always improve it.

PREPARATION OF THE SOIL.

A plan should now be formed for the various crops for another year, and the ground prepared accordingly. Land for Onions should be selected as soon as possible. Choose a good position. Wood ashes and soot may be placed on the plot as they are procured, and a plentiful supply of good manure that has been in preparation for some time. This plot should be trenched two spits and left in a rough state until early spring. Plots for Carrots should also be prepared. Fresh manure should not be added to the soil for this crop. Sand and wood ashes do much for this troublesome crop. Plots for Peas should be prepared with no niggardly hand. Land for early Potatoes should not be heavily manured. Should there be any alterations necessary in the garden, this is the most convenient season for carrying them out. The weather is also most suitable for all outdoor work. Walks may be repaired and gravelled, edging may still be relaid or mended, and many other things done now that there is no spare time for during the earlier months of the year.

GENERAL REMARKS.

In bad weather inspect stock of Pea and other stakes, and if possible add some new ones to the supply, sorting them into two or three sizes. All tree and other labels should be inspected and rewritten if required. Lights should be placed over Parsley in the open should severe frost set in. Attend to the regular sowing of Mustard and Cress and saladings of various sorts. THOMAS HAY.

Hoptown House Gardens, South Queensferry.

THE FRUIT GARDEN.

ON KEEPING GRAPES.

IT is well known that some kinds of Grapes keep after they ripen much better than others, and no one who is desirous of keeping Grapes until fairly late in the new year would think of planting varieties for the purpose that are known to be bad keepers. When, however, the best keepers, such, for example, as Lady Downes' Seedling, Appley Towers,

To this end vines for affording a late supply of fruit should be started into growth early enough in the season for their fruit to ripen by the end of September, and be grown under the influence of sufficient artificial warmth to maintain a warm huoyant atmosphere, this being especially important during the colouring period. Another necessary matter is to maintain the foliage healthy, for the fruit cannot possibly be supplied with its essential keeping properties without the aid of perfect foliage.

The manner in which the fruit sets has a marked bearing upon its powers of keeping, and pains should be taken during the flowering season to promote a circulation of warm fairly dry air through the house, in order to assist the flowers to fulfil their functions. Imperfectly fertilised berries are seedless and readily shrivel after they ripen; moreover, they do not fully develop. The thinning of the fruit has an important bearing on this matter. It should be executed in such a way as will ensure the perfect development of the berries without their being crowded.

After the fruit of some varieties is ripe—that of Black Hamburgh, for example—it soon loses colour, more especially if high temperatures are maintained or it is unduly exposed to sunlight. The former evil can be guarded against by the discreet use of the ventilators and the heating apparatus, while the evil effects of powerful sunshine can be subdued by the use of light shadings, without detriment to the wood of the vines. This means may likewise be taken to prevent the ripe fruit of Muscat of Alexandria, &c., from being discoloured through bright sunshine. Only sufficient artificial warmth, when the fruit is ripe, should be employed to prevent the temperature falling below 45°. During foggy or wet weather the ventilators should be closed; but as soon as the atmosphere has cleared sufficient ventilation should be afforded to dispel, with the aid of the heating apparatus, any moisture that has gathered in the house. The bunches of Grapes should be frequently examined, and any decaying berries removed.

Even the latest varieties should be gathered and bottled not later than early in January.

Most Grape-growing establishments have a room of some kind for this purpose, provided with racks for the reception of the bottles. It need not be an elaborate construction; ours is placed over a packing-shed. It is lathed and plastered, and has a centre path with the racks on either side. A hot-water pipe runs round it upon the floor, and windows, which act also as ventilators, are placed at each end. It should be mentioned, however, that windows should be provided with blinds, as fruit keeps best in the dark.

In bottling Grapes it is advisable to use clear bottles, so that it can be readily seen if the base of the wood is submerged, and each bottle should contain a few pieces of charcoal, which has a purifying effect upon the water. Fill the bottles with soft water, and secure them in position before commencing to gather the fruit. Carefully cut the Grapes with all the wood that can be spared; remove the joints if too large to go in the bottle; carry each bunch direct to the room, without putting it down at all; and in placing the bunches

in position be certain that the wood reaches the water. Subsequently they should be frequently examined, and the water renewed when necessary, care being taken not to spill any. Decaying berries should be removed. When the external atmosphere is dry open the ventilators sufficiently to promote a slight circulation of air, keeping the temperature of the room regularly at about 45°. In damp weather the pipes should be slightly warmed, but in no case sufficiently to create a high temperature or very dry atmosphere, for this would do mischief by causing the berries to shrivel. T. COOMBER.

The Hendre Gardens, Monmouth.

PEAR KING EDWARD.

This is a useful Pear for cooking at this season. The fruits, as regards size and appearance, resemble those of Uvedale's St. Germain, but not the flesh. They are a little longer, pyriform in shape, and the skin is a dark green, much bronzed on the sunny side, and covered with russet spots. It is a handsome variety, and by some is relished for dessert, but as it ripens in October and November there are much better dessert sorts, so that I think it is more valuable for use when cooked. As it crops well it is fit for use some time in advance of the ordinary cooking varieties. I do not advise its culture for dessert; though the fruits are melting, there is a grittiness at the core which is not palatable; the flesh is sweet. When cooked it is excellent. The tree grows freely, and does well as a large bush or pyramid. The crop on standard trees gets much damaged by heavy winds owing to their size. It is an earlier variety than Gilogil, and, like the last named, a great favourite in the northern part of the country. I have seen this Pear very fine on a west wall in Scotland. G. WYTHES.

CORRESPONDENCE.

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

QUALITY IN POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. A. D. Hall of Rothamsted, the chairman of the National Potato Society's committee, having had all the returns from some twenty trial centres in diverse parts of the kingdom sent to him for collation, and seeing how different are the constituents of the soils or their mechanical conformation in which grown as furnished in these returns, has requested that 10lb. of the well-known Potato Up-to-Date grown at all these centres be sent to Rothamsted. A full scientific enquiry will be made in each case into the composition of each sample of tubers with a view to discover if possible what description of soil produces the highest quality. Possibly an analysis of each soil may have to follow. Quality in a Potato means not only starch development or flouriness, but also flavour. The statement of this fact may to some extent show that the Potato Society is not asleep. A. DEAN.

A FAVOURITE WINTER FLOWER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Winter, with its accompaniment of frost and snow, cold wind and rain, is upon us, and we must perforce turn our attention from plants without to plants within. Even the Chrysanthemum, the last of all hardy flowers to bid farewell, has gone under during the recent wintry spell, and the first Christmas Rose has not yet dared to unfold its flowers, so the greenhouse is in favour. Probably the Chrysanthemum is really the most useful indoor flower at this time of year, but those who have them in quantity out of doors will rather have others under glass. Then it would be difficult to have anything more charming than the Freesia. It is not my intention now to give in detail the culture of the Freesia, for that would not be of much use at a season when it ought almost to be in



FREESIAS GROWN FOR MARKET IN THE CHANNEL ISLES.

or Alicante are grown, it taxes the skill of their cultivator to keep them in good condition as long as is necessary. It is equally important to some to keep such comparatively bad keepers as Black Hamburgh and Madresfield Court as long as possible, as it is to others to keep the later varieties, and it has occurred to me that some notes upon this subject might be of interest at this season, at least to inexperienced growers.

One of the necessary conditions is to have suitably constructed houses, the following points being all important—proper ventilation and heating, efficient glazing, and an open situation. A dry atmosphere must be maintained; drip and a damp sluggish air are fatal to Grape storage. There are other things, however, of equal importance as good vineries, and chief among them is the proper cultivation of the fruit. Grapes will not keep satisfactorily unless they are thoroughly well grown, and it is especially important that they be well ripened and contain a proper amount of saccharine matter.

flower; for the Freesia is essentially a flower for the winter. You may have it before Christmas, at Christmas, and after Christmas, by starting the bulbs into growth at intervals from June. I should like to say that it is not much use trying to force the Freesia into flower. The only thing to do if you want to have early bloom is to have them early



EUPATORIUM WEINMANNIANUM OUT OF DOORS.

in growth. They certainly can be hastened a little after the flower-stalks appear, but even then it is unwise to place them in a hot house.

The accompanying illustration gives some idea of the quantities of Freesias that are grown for export in the Channel Islands. From December to April this delightful flower is sent over in quantities, and finds a ready sale in the home markets. Planting is commenced in summer for the earliest gathering, and, in order to provide a continued supply, is repeated at intervals. The price fluctuates according to the season; it starts at 2s. 6d. per dozen bunches, but drops to 1s. when spring draws near. One firm ships about 2,000 dozen bunches per week on the average, and the result is said to be very satisfactory. The Freesia industry gives employment to a good many girls, who pick, hunch, and pack for market. White flowers are none too plentiful at Christmas, so that the Freesia should not be overlooked. Any one with even a cold greenhouse can grow it, provided frost is kept out by covering with mats on cold nights. An excellent plan where quantities are wanted is to place the bulbs in boxes instead of pots. If grown in pots, however, they are useful for home decoration as pot plants. Freesias should be carefully tied and staked, otherwise half their attractiveness is lost.

Y. Z.

LILIUM SPECIOSUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In a recent issue Mr. S. G. Reid asks those who have been able to establish *Lilium speciosum* to relate their experiences. In this garden they grow without any difficulty. When I came here two and a-half years ago I found a large number of the white variety, and in course of remaking the garden they have all been moved. This summer those in a hot south border were rather dried up and did not flower so well as usual, but the majority in a west border were lovely. I have taken no trouble with them, and I suppose the soil suits them. It is very light and sandy, and the subsoil, which is only one spit below the surface, is sea sand. In the beds I get a depth of about 2½ feet of good soil made. I heard the other day of some *L. auratum* that established themselves in soil very like this. They were bought at

a sale at the end of April and planted among shrubs, and not only grew but multiplied.

C. V. NORMAN.

The Grange, Chelmondiston, Ipswich.

EUPATORIUM WEINMANNIANUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having seen an article in THE GARDEN of the 5th ult. by Mr. Fitzherbert on *Eupatorium weinmannianum* as an outdoor shrub, I thought it might interest the readers to see a photograph of a plant in my garden. It has been growing there for years without any special care; the garden is an exposed one, too. I am also sending a box with some blooms from the shrub, which, if the weather is not too wet and frosty, will go on flowering through December. The photograph is of the largest of five plants all in bloom now.

MISS RICHARDSON.

Crown Hill, R.S.O., Devon.

[A very attractive outdoor shrub for so late in the year. The flowering shoots sent were as fresh as though they had been grown in a greenhouse. The pink-white flowers are not showy individually, but are profusely produced.]

CORNISH APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The illustration of Apple Cornish Aromatic (some seventy years ago known as Aromatic Pippin)—in season from November to February—should help to get it and its county compeer Cornish Gilliflower correctly named. A really beautiful example of the latter variety from Weybridge was recently shown at Kingstoo as Cornish Aromatic, and it is probable that the confusion of names is common. So many fruits are found incorrectly named in gardens, because sent out from nurseries under wrong names. But both Cornish Aromatic and the Gilliflower are of the very best of our older Apples. Possibly were they exhibited to-day as new they would secure high awards. But they are old, and there is no money in them. It may be that they are not universal croppers, but when Apple censuses result in the placing of but very moderate Apples in the foreground, just because they are widely grown and better ones are not, then is such return very misleading.

Had we an Apple census for flavour solely Cornish Aromatic and possibly Cornish Gilliflower would take high places. After all we have very few Apples that rank high for flavour. When we make Cox's Orange Pippin our standard of flavour, except in some of the old varieties, there seems to be a big drop. Blenheim Pippin would be one selected, but its fruits for table are better from an old standard tree on good soil than those from a bush or garden tree. Gravenstein, the old Cockle Pippin, Pitmaston Russet, Golden Pippin, Adam's Pearmain, and Starmer Pippin in their seasons would probably all stand higher for flavour than many newer Apples, although so handsome. Charles Ross has developed the Peasgood parentage so much that in spite of its first-class certificate it is disappointing. A republication of the names of all those varieties which took prizes in the Veitch competition for flavour at the Drill Hall would be interesting matter.

A. D.

THE BRISTOL AND BATH AUXILIARY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—We are desirous of making better known the purpose and work of the Gardeners' Royal Benevolent Institution, and of increasing the funds of the Bristol and Bath Auxiliary. The institution, founded sixty-six years ago, provides pensions for gardeners and their widows over sixty years of age disabled or incapacitated from work, and with an income of less than £30 per annum. It now spends in this way about £4,000 yearly, and has during its existence distributed £100,000. That the need is great is evidenced by there being more than forty gardeners whose candidature was approved by the examining committee unsuccessful at the last election. To carry out our purpose we have decided to inaugurate in 1905 a Rose show, the profits arising

therefrom to be devoted by the auxiliary to increasing the number of local life members, as a donation to the parent society, or as contributions to two special funds of the society, viz., the Victorian Era Fund and the Good Samaritan Fund. As this will be the first flower show held in Bristol exclusively for a charitable purpose, we hope it will be supported not only by all lovers of horticulture, but all the generously-disposed residents of the district, and that the number of annual guinea subscribers will be largely increased. (Every subscriber of one guinea has five votes at the yearly election of annuitants.) The members of the auxiliary and their friends have guaranteed £100 towards the necessary expenses of carrying out the show. The expenses will be more than this. Will you help us either by becoming a guarantor, a subscriber to the show, or a donor of a special prize? The show will be held early in July. We do not ourselves propose to give money prizes. As the show is held for a charity we appeal to the generous instincts of all cultivators to help us to make the exhibition a grand floral success without pecuniary reward. Medals and certificates will be presented in order of merit.

On behalf of the committee of the Bristol and Bath Auxiliary,

W. A. GARAWAY, *Chairman.*

W. E. GROVES } *Joint Hon. Secretaries of the*

H. KITLEY } *Flower Show Sub-Committee.*

34, Elliston Road, Redland.

CARNATION DUCHESS OF FIFE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The border Carnation is such a popular flower with everyone who has a garden that you may think it worth while to publish the photograph I send you of the variety Duchess of Fife. I wish to emphasise its value as a flower for the town garden. Near a large Midland town it has done well with me this summer, and I shall certainly grow more another year. The rich pink slightly fringed petals make up a flower that is delightful in a small garden.

Birmingham.

T. W. F.

HORTICULTURAL "FAKES."

[TO THE EDITOR OF "THE GARDEN."]

SIR,—If he has done nothing more, Mr. Arthur R. Goodwin has struck a note of originality in his



CARNATION DUCHESS OF FIFE.

proposition (see page 342) to start a society for the protection of the British public against horticultural "fakes." Mr. Goodwin would be pleased to hear from any reader of THE GARDEN who is willing to co-operate; but before expecting this

your correspondent should explain a little more clearly what he means by "fakes," and give an outline of his scheme. As Mr. Goodwin uses the word in connexion with Potatoes I take it that he wishes to infer that the new varieties for which long prices have been, and are being, paid are "fakes." If so, then I think the public should be left to protect itself, and if a man chooses to pay a guinea for a Potato which he knows nothing about, except what the vendor tells him, when he could get, say, 5cwt. of a variety that has been tried and proved for the same money, he enters into the transaction with his eyes open, and if he is "taken in" that is his own look out. It strikes me that the inflated prices of Potatoes, and the disappointment in some cases are due to the spirit of gamble or speculation which is characteristic of the average Briton.

G. H. H.

ORCHIDS.

LÆLIA PUMILA AND VARIETIES.

SOME of the varieties of this beautiful dwarf Lælia in the collection of Mr. Jeremiah Colman at Gattton Park are illustrated by the accompanying photograph. These were shown in his group at the Royal Horticultural Society's meeting on the 1st ult., when a gold medal was awarded. Lælia pumila Gattton Park variety was awarded a first-class certificate by the Royal Horticultural Society on September 21, 1897. This is perhaps the nearest approach to a blue form in Lælia. The flowers are of good size and substance, the petals and sepals very lightly shaded with a slaty rose colouring; the front part of the lip is practically a solid mass of slaty blue, the basal portion being orange-yellow. It will be interesting to watch the effect this peculiar colouring will have in hybridising. Many crosses have been made at Gattton Park, and some are well forward. Lælia pumila var. George Prince of Wales has pure white petals and sepals, the lip being white with the exception of two irregular small blotches of purplish red. The flower is of good shape, and has much substance.

Lælia pumila The Queen is considered at Gattton a model for shape and substance. The petals and sepals are bright rosy red, the lip is immense and very deeply coloured. Another good point is that the petals and sepals do not reflex like most forms.

As they take up but little room, and when well treated make a very fine show, they should be extensively grown.

W. P. BOUND.

WORK FOR THE WEEK.

CALANTHES.

MOST of the foliage on the earliest-flowering sorts has now fallen, so practically no more water is required; some of the later ones, such as *C. vestita* Regnierii, *C. v. Turneri*, and *C. v. Regnierii sanderiana*, still have some green foliage, and will require water until it has matured. They are now one of

the chief sights in the Orchid houses. Those that do not produce an erect raceme are best shown when secured to a slight stake and drawn to the desired position. The popular *C. Veitchii*, *C. Wm. Murray*, *C. Florence*, and *C. Bryan*, if they have been well exposed to sunlight, will be strong enough to carry their flowers without the aid of stakes. Now that *C. Wm. Murray* and *C. Bryan* have become more plentiful, all growers of Calanthes should add them to their collection. They are robust, and will become as popular as *C. Veitchii*.

There are many other very beautiful forms, but in most cases they are as yet too rare to have in quantity, and for places where Orchids are grown for decoration it is far preferable to grow a fair number of a few than a few plants of many. The full beauty of Calanthes is only seen when they are grouped in masses. As the flowers begin to expand they are best suited if they are removed to a somewhat drier and cooler house, and to obtain the best effect arrange them among *Adiantum cuneatum*, with light Palms for a background.

PHAIUS.

These are still growing freely, yet discretion must be used in watering. In a humid house from



RARE AND BEAUTIFUL VARIETIES OF LÆLIA PUMILA AT GATTTON PARK.

now till the early spring months very little direct watering is required; but if the position is one that dries quickly damp freely between the pots. The hybrids obtained from *P. tuberosus* require more water than *P. grandifolius* and the like. What growers should aim at is to have the compost just humid, and keep it in that state by freely damping, so that direct watering is only needed at long intervals.

Many of the hybrid Phaius are very beautiful, and take up much less room than the old *P. grandifolius* and the assanum varieties, producing spikes of fine flowers freely about 2 feet in height. They are very prolific in producing off-shoots, so that a stock can soon be raised. Among the best are *P. x Cooksonii*, *P. x Norman*, *P. x Marthia*, and *P. x amabilis*. These will, without doubt, be grown extensively for general decoration by many gardeners who do not profess to cultivate Orchids. They are far more useful than some winter flowering plants, and less difficult to grow.

W. P. BOUND.

Gattton Park Gardens, Reigate.

A GENERAL CALENDAR.

PROTECTING ROSES.

FROST usually occurs in this month, and everything should be in readiness for winter protection. Dead leaves should have been collected by the end of November, Bracken should have been cut and got ready, not in heaps but in sheaves; all material for this purpose should be kept dry. It is, perhaps, best to commence the protection as soon as the Rose planting is finished, for should a severe early frost come before the tender Teas are attended to it may cause much lamentation.

Hedge Briars.—These for budding next summer should be planted without delay. Trim and plant them the same day as they are taken from the hedgerows if possible. When trimming leave on every bit of fibrous root. Burnt earth and garden refuse should be freely used in the soil when planting; this will help the Briars considerably to make fresh roots. When a few tall Briars can be obtained these should be planted with a view to

budding some of the charming new wichuraiana hybrids on them; these will make most interesting features in any garden.

Pruning standard fruit trees.—Beware of the travelling fruit tree pruner or the man who cuts away large branches. This method only induces the tree to make more wood. The principal object should be to thin out the branches so that the sun and air may penetrate to every part. All standard fruit trees should be allowed to assume their natural habit of growth. Some throw out their branches horizontally, others are almost upright. Some are drooping; such should not be interfered with. A reduction of redundant or misplaced branches, together with all useless spray and dead spurs and shoots, should only be effected. Fantasti-

cally formed heads of standard fruit trees only tend to defeat the real object for which the latter were planted.

Winter management of greenhouse.—Abundance of air must be admitted on all favourable occasions, more especially after those plants which may have been set out of doors for a season have been brought in again. Avoid crowding, which of all things is the most to be found fault with in greenhouses. All superfluous shoots should be removed from climbing plants trained over the roof or otherwise so as to obstruct the rays of light as little as possible. The plants should be carefully examined, cleared of insects, and such as appear to be defective in drainage or want potting must be attended to.

Blackberries.—These have continued to fruit longer than usual this season, and although there is little flavour in those ripening now they give a variety. The foliage, too, assumes a beautiful colour late in the season. There are few places where a vacant wall could not be found for a few of these plants. They require no particular

cultivation, though when well grown better flavoured fruit and a greater quantity may be gathered.

Norwich. T. B. FIELD.

FRUIT AT THE COLCHESTER SHOW.

HARDY fruit was the special feature of the autumn show held on the 10th ult. Over 600 dishes of Apples were in competition, and the Pears also went into hundreds, but the latter were not equal to the first-named for general excellence, still there were some splendid fruits, notably Pear Doyenné du Comice, and the classes for cooking Pears brought forth some splendid fruits. I have never at a provincial show seen such good dishes of Apples or a larger number of competitors. It is impossible to give a list of all the varieties staged, and I will only mention the names of a few. For many years the Rev. Dr. Bartrum of Wakes Colne has offered prizes for fruits at this show. He stipulates that they be correctly named, and gives the prizes in twelve classes. This year he was placed second. I feel sure Dr. Bartrum will be pleased to see his efforts to improve fruit culture in Essex doing good, and certainly in no part of the country has fruit culture improved so much in so short a time. There were fifty classes for fruits, so that it will be seen that Colchester is in earnest as regards fruit culture, and in some there were over twenty competitors. A good rule at this exhibition is, that when there are over ten competitors a fourth prize is awarded. This is a point the Royal Horticultural Society would do well to follow, as they only give two, and this is very hard on the exhibitors.

The leading place for dessert Apples was strongly contested, and Mr. O. G. Orpen, the well-known Rose grower, was first, with superb fruits of King of Tompkin's County, Allington, Cox's and Ribston Pippins, Washington, and Cornish Aromatic, beautifully coloured and of perfect shape. Cornish Aromatic is not often staged, but here it was very fine. In this class Dr. Bartrum was third. All through the dessert classes Allington Pippin was excellent, and Mr. R. W. Wallace had the best in a strong competition, the fruits being perfect. This is evidently a good grower on the Essex heavy soil, and the quality was fine. For the best dessert dish in the show Mr. O. G. Orpen was first with King of Tompkin's County, and the fruits were cut to test flavour; very fine Cox's Orange Pippin, well

shown, the fruit beautifully coloured; also Blenheim Orange, not too large. The first prize for the best dish of champion cooking Apples was secured by Dr. Bartrum; Mr. O. G. Orpen being first in the class for six varieties.

A great feature are the classes for Pippins, Pear-mains, Russets, Nonpareils, and the Spice Apple, an Essex fruit that is largely grown and better known in other districts as D'Arcy Spice or Baddow Pippin. A class for American and Canadian Apples was interesting, and there was no lack of exhibitors; but at this show the fruits in most cases were not equal to our own, though some of the best were noticeable for their splendid colour.

The best flavoured Pears were Doyenné du Comice, and this was seen throughout the exhibits. Beurré Diel and General Todtleben were good also. All the fruits at this show must be grown in the open. This is an important point. After the Royal Horticultural Society's rules, the Blenheim Pippin and Gascoyne's Scarlet were restricted to 3 inches for the dessert—an excellent rule, as huge dessert Apples are not required. Exhibitors may stage large fruits in the cooking classes. The classes for fruit grown in the borough were excellent. G. WYTHES.

AN ENGLISH GARDEN IN AMERICA.

OLD WORLD flowers in a New World garden! Old-fashioned plants in a new-fashioned country! How strange and lonely they would have felt, how utterly out of place, were it not that American forethought and English skill had prepared a home from home for them, and planted them in suitable soil and amid familiar surroundings. The picture we show is part of the English garden at the great St. Louis Exhibition, planted by Messrs. Carter and Co., the famous seed merchants of High Holborn, with those homely and intimate plants that produce what, for the want of a better name, we term old-fashioned flowers; and, indeed, they are old-fashioned in comparison with the florists' latest productions, which may be said to represent the other extreme, the newest of new-fashioned. From what we learn these lovely English flowers in a typical English garden gave much pleasure to American enthu-

siasts, a fact that cannot fail to give us satisfaction when we consider the associations that cluster round them, the memories that cling to them in the mind of many a one at home.

THE KITCHEN GARDEN.

FRENCH BEANS IN LATE AUTUMN

WE have tried various ways of getting French Beans in late autumn, and the results have not been at all satisfactory when the usual methods of forcing were adopted. There can be no doubt whatever that more care is required to get good forced vegetables before Christmas than after, and this applies particularly to such things as must set their flowers at the worst season of the year. Of course, such roots as Seakale and Asparagus are more readily forced when the top growth ceases, especially if a check can be given just before the forcing, but even then those who force will know how much easier the work is done when the roots have had a longer rest and the plant given more time. French Beans, in my opinion, sown, say, late in October for a late autumn supply, are most unprofitable, as they are forced hard. There is no great difficulty in growing the plant, but in setting the flowers, and here we have had many failures. I saw a large grower who had a good number of empty houses sow French Beans, with the result that he did not get enough Beans to pay for the seed. This was, however, in the Thames Valley, so that different results might be obtained in the sunny south or more favoured localities. I have sown repeatedly 100 pots of Beans early in November for Christmas and not had 100 pods. The flowers do not set, and even when they do the small, tender pods drop in foggy weather. This happens with plants grown in beds or heated pits.

Our successes have been obtained at a small cost. Having a number of heated pits or frames with a flow and return pipe round to keep out frost, the seed was sown in the pits the last week in August and the middle of September. No heat was given until early in November, and only then a little in damp weather with sufficient ventilation to maintain a healthy atmosphere. I like new seed, as this results in a more vigorous plant. We still grow Syon House largely for forcing, and this, in addition to its dwarfness, is very prolific. Another very early variety given a trial this season is Veitch's Early Favourite, which is a larger Bean than Syon House, the latter being a little earlier. Veitch's Early crops grandly, and as it combines size with productiveness it is most useful. The seeds are sown thinly; indeed, a strong plant is of the greatest importance. If at all thick we thin freely, and I place much importance upon keeping the growth as sturdy as possible, as I think too much heat in the earlier stages causes failure later on. Some is essential for the flowers to set freely in October and November. This done the pods swell, and the plant is better able to stand the vicissitudes of our season, where so many changes take place. It is also well to grow the seed in soil not too porous. I find we get a much stronger plant by using good loam. This well enriched is preferable to light sandy soil, and it is equally important to grow near the glass; indeed, our greatest crops this autumn have been from plants nearly touching the glass, but with cold nights, say, in October or later, a little warmth in the hot-water pipes and a chink of air keep the plants growing freely. Plants grown thus flower well, and set their pods, but the growth is less rapid than of plants in strong heat. On the other hand, the produce is more natural, the pods are better shaped, of thicker substance, less stringy, and the quality is finer than in Beans hard forced. The pods can be gathered



CARTER'S FLOWERS IN THE OLD ENGLISH GARDEN AT ST. LOUIS EXHIBITION. THIS GARDEN WAS AWARDED THE GRAND PRIZE.

daily if sufficient frames or pits can be spared for the work. Of course, for a regular supply a good quantity is necessary, but in large gardens where glass is plentiful there is no difficulty in maintaining a regular supply.

This plan is useless if the seeds are sown later than the dates given. I have done this with very poor returns. A period of nearly three months is required for the plants to crop well.

G. WYTHES.

THE FACTOR POTATO.

WHATEVER may be the result when published of the returns sent in from each trial centre of the various twelve varieties grown on all the National Potato Society's plots, I may say that on our Surrey centre The Factor was much the best, giving a crop at the rate of four bushels to the rod, and a fine table sample, Up-to-Date, British Queen, Royal Kidney, Evergood, Cramond Blossom, King Edward VII., Empress Queen, Sir J. Llewelyn, and others coming lower. In a single tuber trial of Potatoes, inclusive of twenty-five varieties, each tuber ranging from 4oz. to 9oz. and planted 4 feet apart, quite remarkable growth resulted; The Factor gave from the one plant 17lb. of fine tubers, King Edward coming next with 15lb., Warrior 14lb., Evergood 13lb., Great Central 12lb., King Loth 12lb., and others much lower down. Hence in two independent trials The Factor has proved to be a wonderful cropping Potato, and its table quality is excellent.

A. D.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THERE was quite a small show in the Horticultural Hall last Tuesday. The finest display was made with Chrysanthemums by Mr. H. J. Jones, who was awarded a gold medal.

ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch (chairman), Messrs. James O'Brien, W. A. Bilecy, de B. Crawshaw, F. J. Thorne, R. Brooman White, H. A. Tracy, H. T. Pitt, J. Wilson Potter, J. Charlesworth, W. H. Young, A. A. M'Bean, Francis Wellesley, Walter Cobb, J. G. Fowler, W. Boxall, James Douglas, J. W. Odell, H. Little, and G. E. Moore.

A silver-gilt Flora medal was awarded to G. C. Raphael, Esq., Castle Hill, Englefield Green (gardener, Mr. E. Brown), for an extensive exhibit of Cyripediums prettily arranged with the help of bright foliage plants. C. lathamianum, C. spicatum, C. leeanum, and others, including some seedlings raised at Castle Hill were comprised in the group.

Messrs. James Veitch and Son, Limited, Chelsea, exhibited some very choice Orchids, prominent among them being Cyripedium insigne Sanderae, of which a dozen plants were shown. Cattleya Mantini, Lelio-Cattleya blechleyensis, L.-C. Cassiope, L.-C. Norba, L.-C. digbyano-purpurata, L.-C. Daphne, Lelia Mrs. M. Gratrix, and others made a welcome bit of colour. Silver Flora medal.

Mr. F. Wellesley, Westfield, Woking, exhibited some beautiful Cyripediums, e.g., C. insigne Chantini Lindeni, C. leeanum Queen of Portugal, C. l. aureum Westfield variety, C. Norma magnificum, &c.

Cattleya labiata autumnalis alba var. was shown by M. C. Beranek, 36, Rue de Babylone, Paris.

A vote of thanks was given to Messrs. Hugh Low and Co., Enfield, for a few choice Cyripediums, such as C. insigne Ernesti var., C. l. Laura Kimball, C. l. Harefield Hall, C. arthurianum pulchellum, C. l. Sanderae, C. callosum Gratrix, and others.

NEW ORCHIDS.

Catasetum pilatum aureum.—This curious and also handsome plant was exhibited by Mr. T. B. Schlesinger, Bedales, Hayward's Heath. The flower is large and open, the lip being broad, concave, with a slight spur. The two petals are curiously formed and situated; their margins recurve into the concave upper sepal, partly hiding it, while the two lateral sepals emerge above the lip. The white column is erect, terminating in a bent point, and having two pointed appendages at the base. The colour of the whole flower is primrose-green, while in the centre of the lip, around the entrance to the shallow throat, there is a mass of deep sulphur-yellow. First-class certificate.

Lelio-Cattleya Pallas magnifica.—The parents of this beautiful flower are Lelia purpurata and Cattleya dowiana. The flower takes after C. dowiana in form. The sepals and petals are mottled with bluish rose upon a white ground, while the large, open lip is richest purple. From G. F. Moore, Esq., Chardwar (gardener, Mr. H. Page). First-class certificate.

Cypripedium Miss Blanche Moore.—This is said to be a cross between leeanum and insigne Harefield Hall variety. A delicate colouring pervades the flower. The upper half of the dorsal sepal is white, the lower half green, spotted with light brown. The petals are mottled with brown upon a light green ground, and the pouch is more heavily marked with brown. From G. F. Moore, Esq. Award of merit.

An award of merit was given to a Cypripedium shown by M. C. Beranek, but we were unable to find a flower.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), Messrs. George Paul, Charles E. Shea, H. J. Jones, H. J. Cuthbush, W. Cuthbertson, Charles Dixon, Charles Jefferies, R. Hooper Pearson, Charles Blich, George Reuthe, J. Jennings, J. E. McLeod, John Green, R. C. Notcutt, J. W. Barr, W. P. Thomson, George Nicholson, E. H. Jenkins, W. J. James, C. J. Salter, Edward Mswley, and Charles T. Drury.

Mr. H. J. Jones, Lewisham, staged a most imposing lot of Chrysanthemums in bold epergues and stands that displayed to advantage these fine autumn flowers. The group was arranged on the cross stand at the end of the hall, and with ample space in the foreground a fine effect was secured. Some of the more important of this grand lot were F. S. Vallis, yellow; Edith A. Fuller, bronze and gold; Dorothy Pywell, white; Donald McLeod, golden; Mrs. Swinburne, ivory white; Bessie Godfrey, fine yellow; Mrs. Boosey, pink; and H. Stevens, rosy pink. In addition there were single and decorative kinds, lightly interspersed with Crotons and Ferns, with handsome Palms in the background. Gold medal.

The winter-flowering zonal Pelargoniums from Messrs. Cannell and Sons were a most brilliant lot, set up in their usual good style. This firm also showed a few Chrysanthemums, Beauty of Swanley, ivory white; Mytilene, very rich orange gold, a grand colour; and Alliance, pale yellow, very charming. Singles and the spidery forms were also shown.

Messrs. W. Wells and Co., Redhill, contributed a fine lot of Chrysanthemums on boards and in vases, the single and decorative sorts making a light and elegant arrangement. Not least among the more noticeable kinds were the Anemone-flowered Edward Bell, a yellow sport from Sir Walter Raleigh, a bluish white kind. The small-flowered Indicum was also shown, together with Mme. E. Roger, with greenish flowers, and many single varieties. Of single kinds Herbert Henderson is rosy lilac, very pretty; Mme. Cadbury is a fine large white; Countess of Harrowby, pale pink; and Dora Stevens, rosy cerise. Silver Banksian medal.

Messrs. Ambrose and Son, Cheshunt, filled an entire central table with choice cut flowers, as Carnations, Chrysanthemums, Roses, Arums, Lily of the Valley, and other such things, interspersed with market-grown plants, as Heaths, Solanums, Cyclamens, Palms, Ferns, Lilliums, and the like. The arrangement was good, but as the cut flowers in no instance were named we cannot more definitely refer to an exhibit which, from the decorative point of view, possessed merit. Some charming Liberty Roses were in this lot and were very fragrant. Silver Banksian medal.

Messrs. Veitch and Sons, Limited, Chelsea, filled a large table with their well-known winter Begonias. The plants were set in groups of several feet each, and consisted of John Heal; the very charming pink-flowered Agatha; Mrs. Heal, fiery crimson; Julius, a double-flowered pink kind; Winter Cheer, and Ensign, a really excellent lot, and very striking at this season. *Jacobinia chrysocephala*, *J. coccinea* (a most valuable plant for winter work), *Reinwardtia tetragyna*, and *Lindenbergia grandiflora* with drooping yellow flowers were also in this group. Silver Banksian medal.

The Hon. W. F. Smith, Greenlands, Henley-on-Thames, showed a batch of Hippeastrums in flower, not remarkable for good form or distinct or good colours, but showy, and from the decorative standpoint quite invaluable at a season when Chrysanthemums are on the wane.

Chrysanthemums were contributed in the cut state by Messrs. R. H. Bath, Limited, Wisbech, Guinea Gold being a most pronounced yellow. Crimson Globe, a useful shade of colour, with golden reverse, was also shown.

Messrs. Cuthbush and Sons, Highgate, showed a nice lot of Tree Carnations in the cut state, which were much admired. We note the following as among the best: America, scarlet; Mrs. S. J. Brooks, white; Nelson Fisher, pink, very showy; The President, fine maroon-crimson; Lord Chas. Beresford, a fine flaked kind, very handsome and fragrant.

Mr. H. B. May, Upper Edmonton, filled a table with Begonia Gloire de Lorraine, B. Turnford Hall, and B. Mrs. Leopold de Rothschild. These are rose, white, and pink forms of the one plant, and are most serviceable at the present time. *Primula obconica* in variety, *Dracma Her Majesty*, a richly coloured kind, with Palms and small Ferns completed the group. On the floor were Poinsettias. Silver Banksian medal.

Mr. L. R. Russell, Richmond, contributed a fine lot of Ivies, mostly as standards and of the tree section, in company with a large number of well berried plants of *Aucuba vera* and *Eunonymus*. The *Aucubas* were most noteworthy, and their value at this season is beyond question. Silver Banksian medal.

Mr. A. Smith, Enfield Highway, contributed Carnations in pots in variety. Coronation, reddish scarlet, and Princess Victoria, pink, were noticed.

Carnations in the cut state also came from Messrs. Bell and Sheldon, Guernsey, and among these we noted Enchantress, pale pink; The President (see "Awards"), Judge Hindall, Nelson Fisher, deep pink; Reliance, white; Mrs. Lawson, and Mrs. Leopold de Rothschild.

Bouvardias were shown by Mr. John Robson, Bowdon Nurseries, Altrincham.

NEW PLANTS.

Cotoneaster angustifolia.—A very handsome and free fruiting plant. The leaves are small, 2 inches or so long, linear lanceolate in outline, green on the upper surface and whitish beneath. The fruiting branches are beset with rigid spines half an inch long. Fruits flattish and round, of shining orange colour, and produced in close clusters of about three dozen on leafy spurs some 3 inches long. The plant is a valuable addition to good garden climbers, and may be briefly described as a climbing Sea Buckthorn, with glossy berries in great abundance and profusion. From M. Maurice de Vilmoren, Paris. First-class certificate.

Chrysanthemum Mrs. T. Dalton.—A large massive flowered Japanese of a crimson tone with cerise, the reverse of the

petals of a silvery tone. A flower of enormous size. Exhibited by Mr. N. Molyneux, Wickham, Hants. Award of merit.

Chrysanthemum Mrs. Swinburne.—A massive Japanese with broad curling florets of good texture. There is a firm crisp touch in the petals of this that speak well for its lasting properties. It is a flower of the largest size, and will assuredly figure freely in the best stands another year. Exhibited by Mr. H. J. Jones, Lewisham. Award of merit.

Carnation The President.—A handsome Tree Carnation, with fragrant flowers of a crimson-maroon shade on long stems. Award of merit.

Carnation Enchantress.—One of the largest yet seen in the pink flowered group. The handsome flowers are of the size of a Malmaison and of a pale pleasing tone of colour. Award of merit.

Carnation Adonis.—A rich scarlet kind, one of the best of its colour. Award of merit. These three were exhibited by Messrs. Bell and Sheldon, Guernsey.

Platycentrum alcoicorne Mayi.—A seedling from P. a. majus, possessing a very elegant and graceful habit, the arching fronds more drooping and the lobes more deeply cut and pointed. Only a small sample was shown, but the character was pronounced even in this, and when compared with the type and P. a. majus the difference is all the more marked. From Mr. H. B. May, Edmonton. Award of merit.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. A. H. Pearson (chairman), Messrs. James H. Veitch, J. Willard, G. Reynolds, W. Pope, George Kelf, H. Parr, Alex. Dean, S. Mortimer, James Gibson, E. Beckett, J. Cheal, and Owen Thomas.

Sir Charles Russell, Bart., Swallowfield (gardener, Mr. S. Cole), was awarded a silver-gilt Knightian medal for an excellent collection of fruit. The Apples were richly coloured, the Melons very fine for the time of year, and the Muscat of Alexandria and Alicante Grapes, too, denoted the best of culture. Apples Peasgood's Nonsuch, Mère de Ménage, King of Tompkins County, and Cox's Orange Pippin were particularly good. Some dishes of Pears were also included.

Messrs. W. and J. Brown, Stamford, Peterborough, and Grantham, exhibited a small collection of Apples and Pears. The former were finely coloured, and included Blenheim Orange, Adam's Pearmain, Cox's Orange Pippin, Tyler's Kernel, Cox's Pomona, and others. Pears Ne Plus Menris, Passe Crassane, Beuré Die, Josephine de Malines, and Belissime d'hiver were some of the best exhibited.

A vote of thanks was given to Mr. W. Ronpell, Roupell Park, S.W., for a basketful of Apple Chelmsford Wonder, grown within five miles of Charing Cross. There were several other dishes of Apples before the committee, but no awards were made. Apple Penn's Wonder, shown by Mr. T. Simpson, gardener to the Earl of Stradbroke, Hensham Hall, Suffolk, is a large, handsome ribbed fruit.

A silver Knightian medal was awarded to Mr. W. Pope, gardener to the Earl of Carnarvon, Highclere, Newbury, for a collection of Onions, Sutton's Crimson Globe, Challenge, Anglo-Spanish, Blood Red, White Spanish, and others were included. Seed was sown the first week in March, the seedlings being planted out in April.

A most interesting exhibit was that from Mr. F. Powell, Park Place Gardens, Henley-on-Thames, of retarded Potatoes each carrying a crop of young tubers. The old tubers shown were put in a cucumber frame on October 17 last. Good dishes of new Potatoes may be had from September to February. This method of raising new Potatoes was fully described and illustrated in THE GARDEN, July 16, 1904. Silver Banksian medal.

EDINBURGH CHRYSANTHEMUM SHOW.

This show, held in the Waverley Market, Edinburgh, on the 17th, 18th, and 19th ult., was the most successful since the series was inaugurated by the Scottish Horticultural Association. We were, unfortunately, unable to publish a report last week. In point of numbers it showed an increase of entries; the quality of the exhibits, as a whole, was superior to that of any former year, while the attendance of the public was the largest on record. The cut blooms were of superior quality to those at the last show. The chief interest lay in the competition for the City of Edinburgh Memorial Prize, for which there were seven competitors, each with fifteen vases of Japanese blooms in fifteen varieties, three blooms of each. Here Mr. T. Lunt, Keir, carried off the cup with a splendid lot of great beauty and of almost equal merit; Mr. D. Nicoll, Rossie, was a good second; third, Mr. James Beisant.

Much interest was also taken in the Scottish Horticultural Association's Queen Alexandra Prize, confined to those within the municipal boundaries of Edinburgh and Leith. The blooms were, as a rule, of splendid quality. First, Mr. James Fraser, Kilravock; second, Mr. W. Lamont, Colinton Road; third, Mr. W. Michie, Boroughfield. There was strong competition for the Scottish Challenge Cup, and good blooms were shown, the prizes going as follows: First, Mr. D. Kidd, Carberry Tower; second, Mr. G. Stewart, Tulliehallan Castle; third, Mr. R. Addison, Leuchie. The other classes for Japanese were well contested. Incurved were well shown, Mr. J. Martin, Corndean Hall, Winchcombe, being first. Single and decorative Chrysanthemums were good and the competition strong. The classes for bouquets, sprays, vases, and epergues were well filled, and many of the exhibits very tasteful.

Plants were of much the same merit as last year, the leading prize-taker with Chrysanthemums being Mr. W. Pulman, Hollywood, Colinton Road. The trade floral exhibits brought out only two competitors, the first prize going to Messrs. Todd and Co., Shandwick Place, for a display of floral designs of exquisite beauty. The third prize was awarded to Mr. W. Jobson, Southfield Nursery, Portobello. Miscellaneous plants call for no special notice, but were equal to those of last year.

Fruit was a most attractive section of the show. In the Grape class Mr. J. Leslie, Pitcullin, had matters practically all his own way, winning five first and one second prize in the seven classes. Mr. W. Galloway, Gosford House, was first

for Muscat of Alexandria, and Mr. McMillan, Douglas Castle, was first for Lady Downe's. Mr. D. Kidd, Carberry Tower, was first for the collection of eight varieties of fruit. Apples were very well shown, and were finer than those of last year.

In the classes restricted to Scotland Mr. C. Webster, Gordon Castle, Fochabers, was first for eighteen varieties, Mr. R. Grindrod, Whitfield, Hereford, being first in the unrestricted classes. Mr. F. Jordan, Impney, was awarded the Association's gold badge for the best collection of hardy fruit grown in the open, and the first prize for six Pears; Mr. J. Day, Galloway House, winning for six Pears grown in Scotland. In the market gardeners' classes for Apples Mr. G. Mackinlay was first.

Vegetables were capital, and the competition was good. Mr. W. Reid, Dollarfield, Dollar, beat Mr. E. Beckett, Aldenham, with his collection of ten varieties; but the competition must have been very close. Mr. W. Harper, Tullie-beltou, was third.

Mr. D. M. Michan, Hillfoot, Dollar, won with six varieties. The other vegetable classes were well filled and of excellent quality.

The trade exhibits were a great attraction, particularly those of Mr. H. J. Jones, Mr. W. J. Godfrey, and Messrs. W. Wells and Co., Limited. Mr. Jones made a splendid exhibit of Chrysanthemums, beautifully arranged, for which a gold medal was awarded. Silver medals were awarded to Messrs. Wells and Co. and Mr. W. Godfrey. Messrs. James Grieve and Sons, Dicksons and Co., J. Dickson and Sons, W. Cutbush and Son, and others showed flowers or plants; Messrs. W. Drummond and Sons and Mr. Hugh Dickson showed splendid Apples and Pears; and Mr. T. W. Scarlett, Edinburgh, and Messrs. W. Davie and Co., Haddington, sent Potatoes. The show was a great success, and the arrangements exceedingly well made.

BORDER DISTRICT CHRYSANTHEMUM SHOW.

THIS show was held this year at Selkirk. The entries showed an increase of ninety over last year's show, which was held at Hawick. Both in number of entries and in point of quality this show has shown a steady improvement since its inception in 1890, and this year's exhibits were generally of high-class quality.

Mr. A. Bruce, Gala House, Galashiels, was first for eight vases Japanese; Mr. J. Clark, Bannerfield, Selkirk, Mr. D. May, Abbotshill, Galashiels, and Mr. J. Reilly, Galahill, being the other prize winners in the classes for Japanese cut blooms. Mr. J. Clark had the best twelve incurved blooms; Mr. A. Bruce the best three vases decorative; Mr. W. Gowelock, Kingsknowes, Galashiels, was the most successful in the Chrysanthemum plant classes; Mr. J. Reilly had the best group of plants; Mr. W. Gowelock the best foliage plants. Other prize winners with various plants were Messrs. J. Mowat, J. Kinneir, D. May, and W. Buckham; the last named had the best Grapes, and Mr. T. Gray and Mr. A. Bruce the best Apples. Mr. J. M. Turner, Galashiels, had the best collection of vegetables. The amateurs' classes were very creditable.

NATIONAL CHRYSANTHEMUM SOCIETY.

ON Monday, the 21st ult., the executive committee of this society held a meeting at Carr's Restaurant, Stroud, when the president, C. E. Shea, Esq., occupied the chair. Mr. Richard Dean, the secretary, was, unfortunately, prevented from attending through illness, but his place was taken by his son, who read the minutes of the previous meeting and various correspondence in connexion with the recent show. An interesting statement as to the attendance at the Crystal Palace show was read, by which it appeared that the number of visitors was considerably in excess of those at last year's show. It was stated that prize money to the value of £268 14s. was awarded to exhibitors on that occasion, and this, too, was gratifying, it being in excess of the prize money awarded in the previous year's November show. A list of medals awarded was also read. Owing to the secretary's absence no financial statement could be rendered, but it was promised for the next meeting of the committee, and was said to be satisfactory. The following dates were agreed upon for the 1905 exhibitions, viz., October 4 and 5, November 1, 2, and 3, and December 6 and 7.

The meetings of the executive committee were also fixed, and are as follows:—September 18, October 23, November 20, and December 11, 1905, and January 15, 1906. The floral committee will meet at the Essex Hall on September 18, October 23, November 20, and also at the Crystal Palace on the first days of the three shows, viz., October 4, November 1, and December 6.

The usual resolution was passed inviting the members of the floral committee to a dinner at the end of the season. Twenty-one ordinary members were elected and one Fellow, and the business was brought to a close with a hearty vote of thanks to the chairman for presiding.

ANNUAL DINNER.

The annual dinner of this society was held at the Holborn Restaurant on the 23rd ult., Mr. C. E. Shea, president of the society, being in the chair. There were over a hundred persons present.

After the usual loyal toasts, that of the National Chrysanthemum Society was proposed by Mr. Bunn, in the absence of Mr. E. T. Cook. Mr. Bunn said he admired the work of the society's members and also their special flower. He thought the society was deserving of great praise for the many lessons it has taught and the great perfection to which it has helped to bring the Chrysanthemum.

In reply to this toast the president, Mr. Shea, first expressed the great regret of himself, and he was sure of those present also, at the enforced absence of Mr. R. Dean through illness. Mr. Dean had always discharged his duties as secretary very satisfactorily. Referring to the great advance in the Chrysanthemum from the type, *C. indicum*, Mr. Shea said that English and French growers and raisers were chiefly responsible for this. Those who doubted the wisdom of the society in going back to the Crystal Palace to hold its shows must have been reassured by this year's display there. He said many criticisms—some good, some bad—had been

levelled against the methods of exhibiting blooms, and, while the society was quite of opinion that it must break new ground and must progress, critics often forgot the difficulties in the way of transporting flowers with long stems. Mr. Shea went on to say that the entries at the last Crystal Palace show were so numerous as to refute Mr. Molyneux's statement in the *Gardeners' Magazine* that they had diminished. Mr. Shea said there were twenty-six entries in one class alone, and wondered how many there used to be.

Mr. George Gordon proposed the toast of "The President, Vice-President, and Other Officers of the Society." In the course of his remarks Mr. Gordon said how much they all regretted the absence of Mr. Dean; the manner in which he had done his duties was beyond all praise. Mr. T. Bevan replied. Mr. C. Harman Payne gave "The Affiliated Societies," to which Mr. Alderman Bishop replied. The toast of "The Chairman" was entrusted to Mr. Whitty. Other toasts were "The Ladies and Visitors" and "The Press."

During the evening the National Challenge Trophy (presented to the Epsom and District Society) was received by Mr. Hunt, their chief exhibitor. Mr. Higgs was presented with a Challenge Trophy and Holmes Memorial Cup which he had won. Mr. Mease also received a Holmes Cup for his success during the past season.

BRISTOL CHRYSANTHEMUM SHOW.

BRISTOL was one of the first centres to form a Chrysanthemum society, but it is a question if the society at any time held a better show than on the 16th and 17th ult. to the Colston Hall. The indefatigable efforts of the secretary, Mr. Groves, and his assistants did much, assisted by fine weather, to make the exhibition so marked a success.

CUT BLOOMS.

For twenty-four incurved Mr. S. W. Drake, the well-known Cardiff grower, was placed first with a good set of well-grown blooms; Mr. F. May, gardener to H. O. Lord, Esq., Lilley Brook, Cheltenham, was second. With beautiful blooms Mr. H. Baker, gardener to Dr. Cropper, Mount Ballan, Chepstow, was placed first for twelve incurved.

For thirty-six Japanese blooms: A Challenge Vase valued at fifteen guineas is awarded with the first prize in this class, the conditions being that it must be won three times by the same exhibitor before becoming his property. Mr. Vallis of Chippenham last season finally secured a vase of this description, and his exhibits were missed at Bristol on this occasion. Among six exhibitors, however, The Frome Flower and Fruit Company were first, and staged fine blooms; Mr. May was a good second.

For twelve Japanese: Eight highly meritorious stands were staged in this class, the chief one by Mr. Baker. A bloom in this collection of Mrs. F. W. Vallis was awarded the National Chrysanthemum Society's silver medal as the best flower in the show. The second position was secured by Mr. Pope, gardener to C. Baily, Esq. A class of the same kind for gentlemen's gardeners and amateurs found Mr. Pope leading, with Mr. Baker second, amongst eight exhibitors. Provision was made for large-flowered Anemone varieties by a class for twelve. Here Mr. Hack, gardener to Mrs. W. Pethick, was placed first, Mr. Strugnell being second.

VASES OF CUT BLOOMS.

The classes provided for these attracted considerable notice, and deservedly so. The class for six distinct varieties attracted six competitors, and of these Mr. Sutton, gardener to W. A. Todd, Esq., was first; the Frome Flower and Fruit Company were a good second. Mr. Perry, gardener to H. Nell, Esq., was placed first for six blooms of any white sort, followed by Mr. Sutton, while Mr. J. C. Pope, gardener to C. Baily, Esq., in a splendid class, was first with F. S. Vallis for six blooms of any yellow variety.

FRUIT.

In a class for six dishes Mr. Raikes, gardener to W. A. F. Powell, Esq., was placed first amongst seven exhibitors; second, Mr. Strugnell, gardener to the Right Hon. W. Long, Road Ashton.

For six dishes of dessert Apples there were no less than eighteen lots. First, Mr. Strugnell, with a splendid set; Mr. G. Runnacles was a close second.

In the classes for dishes of dessert and cooking Apples the leading prize-takers were The Cedar Hardy Fruit Company, Mr. Jay (gardener to T. K. Valland, Esq.), Messrs. G. Farmer, Lord, Colwell, Strugnell, and Runnacles.

Pears, six dishes: With excellent fruit Mr. Bannister was first, and was followed by Mr. Farmer. With four dishes Mr. Bannister was once more placed first in a good class, Mr. Colwell being placed second. Mr. Runnacles was first for Doyenné du Comice.

Grapes: These were largely shown, nine classes being allotted, but there were some weak stands amongst them. The best bunch in the show was staged by Mr. Mitchell, gardener to J. W. Fleming, Esq., in his first prize lot of Muscat of Alexandria; Mr. J. Ollis, gardener to C. E. Whitting, Esq., was second in this class. Fourteen exhibitors staged in a class for Black Hamburgs, Mr. Morse, gardener to W. H. Lindred, Esq., being first. Mr. Mitchell was again first for Mrs. Pince's Muscat. Mr. Cooté won for Alicante, and also for Lady Downe's Seedling. Mr. Spry won in the class for Gros Colmar. Collections of vegetables were numerous and of excellent quality.

PLANTS.

Many fine specimen plants of Palms, ornamental foliage plants, Ferns, &c., were staged, and they made an imposing display down the centre of the large hall. Mr. Bannister was the chief exhibitor of Ferns, and Mr. Benfield of ornamental foliage plants. Begonias were shown by Mrs. Coleman, Poinsettias by Sir Charles Care, Cyclamens by Messrs. Blackmore and Langdon, Primulas by Mr. McCulloch, Nepenthes by Mr. E. White, and dinner-table plants by Mr. Bruce, gardener to L. White Esq. Mr. Crane was first for a group of miscellaneous plants 50 feet square. For a group of Chrysanthemums, 50 feet square, Mr. Bannister was the sole exhibitor, and was deservedly awarded the first prize. The

best twelve Tea Roses were from Mr. J. Hobbs and Mr. Bannister, while Violets were splendidly shown by W. Price Jones, Esq., J. L. Waller, Esq., and others.

Non-competitive exhibits did much towards contributing to the show's success. They were from Messrs. Cooling and Sons, Bath; Messrs. Garaway and Co., Bristol; Messrs. Parker and Sons, Bristol; Messrs. Dobson and Co., Bristol; Mr. Godfrey, Exmouth; Mr. Vincent Slade, Taunton; Messrs. Blackmore and Langdon; Messrs. Carter and Co.; and Messrs. Ambrose and Sons, Cheshunt.

READING CHRYSANTHEMUM AND FRUIT SHOW.

DELIGHTFUL weather favoured the twenty-first—the "coming of age"—show of the Reading Chrysanthemum Society, which was held recently in the Town Halls, Reading; and the occasion was marked by a huge attendance.

The general entries totalled no less than 390, as against 240 last year; but this great increase is mainly to be accounted for by the abnormal number of competitors in the classes for Apples, there being no less than 550 dishes of this fruit entered in competition, while over 100 lots were shown "not for competition."

There were two competitors in the leading open class for a group of Chrysanthemums. Mr. Charles E. Keyser, of Aldermaston Court (gardener, Mr. Galt), was first; and Mr. Walter, of Bear Wood (gardener, Mr. W. Barnes), second. Mr. Keyser's group secured the challenge cup, which was last year awarded to Mr. Walter for a remarkable display, on which comments were made at the time. Lady Cooke, of Easthorpe, Reading (gardener, Mr. Exler), was first for a floral display.

Mr. W. Pole Routh, of Oakfield, Reading (gardener, Mr. House), was an easy first for three specimen distinct varieties in 9-inch pots.

In the open classes for cut blooms, Japanese and incurved, and vases and bunches or sprays, there was keen competition of the usual excellence, but space only admits of our referring readers to the prize list.

In table decorations Mr. Walter's gardener (Mr. Barnes) was an easy first. In the section for subscribers employing not more than two gardeners, Mr. W. J. Justinus Brinn's gardener staged a very fine lot, beating groups shown by Lady Cooke and other exhibitors.

In the fruit classes many grand bunches of Grapes were staged. Black Alicante produced a large entry, the Duke of Wellington's tremendous bunches beating those beautifully coloured staged by Mr. F. Cole, gardener to Sir Charles Russell, of Swallowfield Park. The class for Lady Downe's was headed by Mr. G. C. Raphael, closely followed by Mr. M. H. Fournet Sutton, of Broad Oak, Reading (gardener, Mr. Fooks). In the class for two bunches of white Muscat of Alexandria, Sir Charles Russell's beautifully-coloured bunches defeated those sent by Mr. G. C. Raphael and the Duke of Wellington.

As usual, a notable feature of the show was formed by the exhibits "not for competition."

DUNFERMLINE CHRYSANTHEMUM SHOW.

The show of the Dunfermline Chrysanthemum Society was opened in St. Margaret's Hall, Dunfermline, on the 25th ult. The number of exhibits was greater than last year, while there was also a general improvement observable in the larger number of the classes. The cut blooms were noteworthy for their size and finish, plants were good, and the vegetable classes had some produce of the highest quality. In the open classes for cut blooms the first prize for twenty-four Japanese was won by Mr. J. M. Proctor, Comely Park; Mr. W. Lumley, Broomhall, being first in the class for twelve; and Mr. J. Simpson, St. Leonards Hill, in that for six. Other leading prizes in the cut bloom classes were won by Messrs. Proctor, Simpson, and T. Reid, Hawthornbank. Mr. T. Reid had the best six incurved; Mr. J. Simpson the best Japanese bloom in the hall; Messrs. Reid and Simpson led in the classes for vases. In the plant classes Mr. J. Walker, Priory House, led for six pots; Mr. E. Boaz, Moodie Street, for three; T. Reid, Mr. J. Reid, Mr. J. Reach, and Mr. R. Haldane were the other first prize takers in these classes. Mr. T. Campbell, Pittencrieff, had the best lady's spray and bouquet; and Mr. R. Izatt the best button-holes. The leading winners in the classes for plants were Messrs. Fraser, Lumley, Marshall, and J. Reid. The principal winners with vegetables were Mr. W. Reid, Dollarfield, Dollar, Mr. W. Lumley, Mr. J. Brown, Middlebank, Mr. J. M. Blyth, Cockairnie, and Mr. J. M. Birkett, Dunfermline. The show was very successful.

READING AND DISTRICT GARDENERS' ASSOCIATION.

THE last meeting of this association was given up to the reading of the first prize essays in the senior and junior divisions in the recent competition on Carnations. The two successful competitors were Mr. W. Turnham of Culham Court Gardens, Henley-on-Thames, and Mr. H. Wynn, The Gardens, Cressingham, Reading. After the essays had been read, a good discussion took place, sustained by the chairman, Messrs. Powell, Tunbridge, Ellis, Townsend, Chambers, Dore, Judd, Hinton, and Winsor. There were two exhibits, both remarkable for the time of year, viz., twelve splendid fruits of a seedling Melon, by Mr. W. H. Baroea, The Gardens, Bear Wood, and some beautiful blooms of Cactus and Pompon Dahlias, cut from the open, by Mr. T. J. Powell, The Gardens, Park Place, Henley-on-Thames.

LEITH HORTICULTURAL SOCIETY.

THE annual meeting of this society was held on the 21st ult. It was reported that the expenditure for the year ending October 31 amounted to £646 3s. 5d.; the balance being £4 16s. 3d. Some discussion regarding the expenditure on some of the departments was engaged in. The following office-bearers were appointed:—President, Mr. J. H. Tait; secretary, Mr. W. Millar; treasurer, Mr. D. Macalpine. It was agreed to convert the society into a limited liability company.

THE GARDEN

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THE WASTE OF GARDEN GROUND.

There are hundreds of gardens about the country where there is a lamentable waste of good garden ground, and the productive capacity of which is sadly restricted. Especially is this true of old gardens which are found attached to residences built many years ago. These have become the picture of neglect, and many new ones, by reason of unskilful or inappropriate planting, or by planting things unsuited to the soil and position, fail completely to yield profitably. Unfortunately, many who are the possessors of such gardens are careless as to their condition, mainly perhaps because they fail to see improvement is practicable, though when a change is made, as sometimes happens, and a gardener who knows his business takes one in hand, this change for the better is at once discernible.

Let us look into one of these neglected gardens, and what meets the eye? We see old and useless trees that shut out the best of the morning sun, and prevent anything like the ground beneath them being cropped to advantage. Shrubs planted singly or in clumps have outgrown all reasonable dimensions and encroached upon soil that would otherwise be productive, or they have grown tall and, becoming bare at the base, are unsightly objects. Then there are overgrown hedges that rob the extent of the garden of many yards of good ground, and which might be cut in, as in the case of the shrubs, and converted into Pea sticks, firewood, &c., or be burnt to supply wood ashes. One sees fruit trees and bushes crowded and cankered, overgrown and interlacing each other, and occupying ground for which their annual crops prove no equivalent. In the gardens of the working classes, and especially of agricultural labourers, there are to be seen many overgrown trees shading the ground and preventing the growth of green crops which would prove far more remunerative and acceptable—gardens that with better cultivation might be made to produce double what they do and everything of better quality if the tenants could be made to increase their interest in cultivating them, cutting down an old Maple or an overgrown Elder in the hedgerow, repairing broken-down fences, cutting the hedge close in, making the walks few and straight and no wider than

3 feet, and covering every inch of fence or house-wall with something useful or beautiful.

In the summer we were called upon to go through a group of English villages and make awards to the best gardens. The most favourably tilled and cropped gardens were those where the cottages had as inhabitants workmen following other occupations than those of agricultural or garden labourers. Some were working carpenters or bricklayers, or men who were following some occupation on their own account, and in nearly every case the gardens were remarkably well kept. Perhaps the farm and garden labourer, after following work all day, found any continuation of it in the evening somewhat irksome and monotonous, while to the artisan it came as an agreeable change from a mere mechanical occupation. Many of these cottage gardens were far too large to be kept in anything like good condition by the head of the family, who had but little, if any, daylight in which to work in autumn and winter, and if such gardens could be divided among two or three occupiers, or a portion employed to rear some agricultural crop, it would be better than allowing them to go to waste as they do now.

THE ALPINE HOUSE IN DECEMBER.

ALTHOUGH this house at the present dull time of the year is not so attractive as it will be in another few weeks, there are several interesting plants in flower, and many others which show an early promise of brighter things to come. It is very interesting to watch the development of the various plants, and much pleasure can be derived from the observation of the different stages through which the flowers pass before the petals expand. It is true that a great many pots which contain bulbous plants have only a few points just breaking through the soil, and present a bare, unsightly appearance. By the use, however, of evergreen plants with pretty and distinct foliage, like Galax, *Shortia*, crusted and mossy *Saxifragas*, *Sedum*, and others of like character judiciously mixed with them, this bareness may be to a great extent obviated, and the house made to present a furnished appearance. Of the plants in flower the most beautiful is the Scorpion Iris (*I. alata*), with its delicate lilac-blue blooms, the first of which was produced in October, and which promises to continue till the beginning of the new year. This plant is well adapted for this purpose, as, although it will grow in a sunny position outside against a south wall, its delicate flowers are liable to be spoilt by the splashing of heavy rains. With the shelter of

the cold alpine house, however, it is enabled to develop its full beauty, and materially assists in making the house attractive when the plants in flower are very few. Also in bloom is the distinct and charming Megasea-leaved *Primula* (*P. megaseaefolia*), with its broad green leaves and trusses of rose-purple flowers. Although a comparatively recent introduction from Asia Minor, this plant promises to soon become popular, as it is so easily increased by dividing the root after flowering into single crowns and growing on, when they soon make nice plants.

The Meadow Saffrons are represented by the useful and pretty *Colchicum libanoticum*, which is found on the mountains of Lebanon in Syria, and which has flowers varying from rose colour to white. These are produced in succession, several from each bulb, the flowering period extending from the beginning of November to January. *C. Decaisnei*, also from the East, is beginning to throw up its flesh-coloured flowers here and there in the pans, but it will probably be the end of the month before they are all in bloom. Another distinct little *Colchicum* from Syria is *C. Steveni*, which is also in flower. It is closely allied to *C. montanum*, with rose-coloured flowers varying almost to white. The leaves, of which there are about five or six to each bulb, are long and very narrow.

Of the winter-flowering *Crocuses* in bloom there is *C. marathonsius*, from Mount Taygetus in Greece, with its golden-throated, pure white flowers. This is a handsome species, with flowers of good size, freely produced. *C. hyemalis*, a native of Palestine, is a delicate little plant. It enjoys the distinction of having the most southern range of all the *Crocuses*. Like most of the other species of this genus its flowers are variable in colour, some pure white with a golden throat, while others have purple lines on the outsides of the segments near the base. The variety *Foxii* has flowers with black anthers. Other *Crocuses* in flower are *C. caspius*, from the Caspian region, with large white or pale lilac flowers, and *C. lævigatus*, a pretty species from the mountains of Greece. The flowers of the latter vary from white to lilac, and are distinctly feathered with purple markings on the outer segments.

One or two early flowers are just opening on *Saxifraga apiculata*, with many others almost ready to burst. *Alyssum Bornmuelleri*, a pretty compact-growing plant from Asia Minor, has been in flower for a long time, and is still producing its small white blooms. The beautiful little Algerian Hoop Petticoat *Daffodil* (*Narcissus monophyllus*) is almost ready to expand its pretty flowers. Exceedingly useful plants for the alpine house are the hardy *Cyclamen C. coum* and *C. ibericum*, the former with dark green round leaves, and the latter having a pale zone. They present a well-furnished appearance, and the flowers with their rose-coloured points are already showing above the soil. Most easily grown,

they stand pot treatment well, flowering annually and lasting for many years.

Of the plants remarkable for their foliage perhaps the most conspicuous is *Shortia galacifolia* with its richly coloured leaves. In this condition it is almost, if not quite, as attractive as when in flower. A pleasing plant also is *Galax aphylla*, with its large, thin leathery leaves on long stems. Many of these, which are green in summer, turn to a rich red-brown in autumn and early winter. The *Saxifragas* are rich in material, suitable for the alpine house in winter, both the crusted and mossy sections containing many distinct and interesting species of evergreen habit. *S. longifolia*, with its large rosettes of leaves, is a handsome plant, well worth a good place. Other distinct crusted species are *S. catalaunica*, a somewhat rare plant from Northern Spain, with broad crusted margins to its leaves; *S. cochlearis* and its smaller variety *minor*; *S. crustata*, and *S. aizoon* in its many forms. Among the mossy set suitable for their rich green foliage to break the bare appearance of the many pots of bulbs may be mentioned *S. cæspitosa*, *S. decipiens*, *S. hypnoides*, and *S. trifurcata* and its variety *ceratophylla*. *S. cuneifolia* and its varieties are also good evergreen plants.

Many of the *Sedums* are useful, including *S. album*, *S. dasylphyllum*, the North American species *S. obtusatum* and *S. ternatum*, as well as the distinct Mexican *S. Stahlii*, with its very fleshy, red-brown leaves on wiry stems. These give an interesting variety, and the *Sempervivums* can furnish many suitable plants for this work, including *S. arachnoideum* and var. *Lageri*, *S. globiferum*, *S. Funckii*, *S. mettenianum*, *S. Pomelii*, *S. Schottii*, and *S. triste*.

Pretty plants are some of the silvery-leaved *Artemisias*, and easy to grow in pots, although they suffer a good deal through damp during the winter in the rock garden. Among the best are *A. Baumgartenii* (from South-eastern Europe), *A. lanata* var. *pedemontana*, and *A. vallesiaca* (a native of Switzerland and the Piedmont).

Interesting plants are the two hardy *Selaginellas*, *S. Douglasii*, from North America, and *S. helvetica*, a native of the European Alps. They both form bright green carpets, lasting fresh throughout the winter. *Thymus azoricus* is a tufted plant from the Azores, with compact evergreen foliage. In the *Achilleas* we have several species with leaves of a silvery hue—*A. Griesbachii*, *A. Huteri*, *A. serbica*, and *A. umbellata*. The *Cerastiums* are represented by *C. alpinum* var. *lanatum*, *C. Biebersteini*, and *C. tomentosum*. Other evergreen plants include several species of *Draba*, *Androsace lanuginosa* and *A. sarmentosa*, *Nocca alpina*, and *Erodium chamædrioides*. These plants mentioned by no means include all those suitable and interesting enough for use as pot plants in the alpine house in winter, and many more may be used with advantage.

W. IRVING.

RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for December contains portraits of

Kalanchoe Dyeri.—Native of Nyassaland. This is a very handsome plant, with thick, fleshy, deeply-toothed foliage, and large bunches of large Crassulalike flowers of a delicate shade of rosy white.

Cydonia sinensis.—Native of China. This is also known under the synonyms of *C. chinensis*, *Pyrus sinensis*, *P. cathayensis*, and *Chænomeles chinensis*. It is a very large golden-fruited and handsome Quince, with very ornamental rose-coloured flowers with a deeper centre.

Lonicera syringantha.—Native of North-west China. This is a very pretty and free-blooming Honeysuckle, with small rosy flowers resembling those of the Himalayan species, *L. tomentella*, but produced in much greater profusion.

Odontoda Vuylstekeae.—Of garden origin. This is quite one of the most strikingly beautiful hybrid Orchids ever seen, and created a sensation when exhibited by its raiser for the first time at the Temple show this summer. It is the result of a cross between *Cochlioda neozliana* and *Odontoglossum nobile* of Reichenbach or *Pescatorei* of Linden. Portraits of single flowers of both parents are also shown on the plate, which is extremely instructive and interesting to Orchidists. A very large price was offered for this plant during the show, but it did not change hands, and was taken back to Belgium.

Tulipa Batalini.—Native of Turkestan. This is an extremely bright and pretty Tulip, one of the eleven species which are natives of Turkestan. It has medium-sized flowers of a clear pure canary yellow, with an orange band round the base of the petals and centre of flower.

The second part of the *Revue Horticole* for November figures

Hydrangea hortensis rosea and *cærulea*.—This plate is given to show that the rose-coloured flowers of the ordinary form of this well-known shrub can be changed to a fine deep blue by cultivation.

The first number of the same publication for December figures

Eucalyptus feifolia.—A native of New Holland. This handsome plant is quite the most beautiful and ornamental member of its family, whose flowers are generally white of various degrees of purity, while its flowers are in one form of a fine deep crimson, and in another (also figured on this plate) of a delicate shade of pink.

The December number of *Revue de l'Horticulture Belge* gives a fine double plate of a large new Japanese Chrysanthemum named *Monsieur Antonin Marmontel*. W. E. GUMBLETON.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 13.—Royal Horticultural Society's meeting at the New Hall, Vincent Square; Exhibition of Colonial-grown Fruits, and of Home, Colonial, and Foreign Jams and Preserved Fruits.

December 14.—East Anglian Horticultural Club meeting.

January 3, 1905.—Royal Horticultural Society's meeting.

January 24.—Royal Horticultural Society's meeting.

Royal Horticultural Society.—This society will hold a special show of Colonial fruits, &c., on Tuesday and Wednesday next. All exhibits of Colonial fruit, &c., and of British bottled fruits, jams, &c., must be staged on Monday next, and be ready for the judges at 4 p.m. At 5 p.m. the council hold a private view of the show, to which representatives of the Press and a few guests have been invited. Any space not required for exhibits under the special schedule will be allotted for groups of flowers, &c., as usual, but such exhibits can only be accepted on the special understanding that they will be staged before 11.30 a.m. on Tuesday, and will be left on view for the whole duration of the show, which will remain open till 10 p.m. on Wednesday. Plants shown for certificate only will be allowed to be removed at 4 p.m. on Tuesday.

The new Victoria Medallists of Honour.—The following three gentlemen have been selected to complete the list of the sixty-three Victoria Medallists of Honour; the vacancies were called by the deaths of the Dean of Rochester, Mr. Smith of the Mentmore Gardens, and Mr. Herbst. Mr. Challis is one of the most able and best respected of British gardeners. For over forty years he has held the position of head gardener to successive Earls of Pembroke at Wilton House, Salisbury. In the west of England his name is a household word

in gardening circles, and he is much in request as a judge at exhibitions. Mr. Challis has especially interested himself in fruit culture; he was one of the first to recommend the method of growing Peaches under glass on upright trellises fixed at right angles to the back and front walls, instead of the flat trellis arranged below the roof, as is most usual. A very good horse lawn-sweeping machine used in gardens was devised and brought out by Mr. Challis. The Royal Horticultural Society could hardly have found a worthier and more typical representative of the gardeners of this country upon whom to bestow the coveted Victoria Medal than Mr. Challis. Mr. Edward Mawley is widely known as the honorary secretary of the National Rose Society, and his hard and persevering work has had such far-reaching results as to make further commendation unnecessary. In former years as co-secretary with the Rev. H. d'Ombrain, and for the past three or four years as sole secretary, Mr. Mawley has, with the help of other workers, been instrumental in widening the influence and promoting the good work of the National Rose Society. In the selection of Mr. Mawley as a recipient of the Victoria Medal all Rose growers will feel that a better choice could not have been made. His work for the Meteorological Society must also be remembered. Mr. A. Dean has filled many and various posts in the horticultural world. As a County Council lecturer, one who has interested himself in the promotion of cottage and allotment gardening, as a valued contributor to horticultural journals, as a member for many years of the Royal Horticultural Society's fruit committee, as an expert among vegetables and author of an excellent manual, "Vegetable Culture," as well as in other ways, Mr. Dean has done good work for gardening. Few men are more widely known among gardeners. Mr. Dean acted as secretary to the committee who organised the great gardeners' meeting and dinner held last year.

The Royal Horticultural Society and its advantages.—The New Year is approaching with rapid footsteps, and among its promised gifts are the plants distributed by the Royal Horticultural Society to its Fellows, such a delightful set of plants which you are allowed to select from a list sent out in January—hardy, half-hardy, and stove plants, the newest and best varieties, and Fellows residing beyond thirty-five miles from London, according to the A B C Guide, are entitled to a double share. The plants are beautifully packed and in such perfect condition that, though I have been the lucky recipient for several years, I have not lost one. Those who are not yet Fellows will be in time to receive their share of the distribution if they send in their subscription at once. Of course, there are many other advantages accruing from a Fellowship. The Society's Journals are worth the subscription alone, and a £2 2s. subscriber gets all these advantages, with one non-transferable pass and two transferable tickets for all the shows and meetings. All amateur gardeners should become Fellows of the Royal Horticultural Society, and should write for information to the kind and courteous secretary, the Rev. W. Wilks, M.A., 117, Victoria Street, S.W.—L.

National Sweet Pea Society.—The annual general meeting of this society will be held at the Hotel Windsor, Victoria Street, S.W., on Tuesday next, at 2.30 p.m.—HORACE J. WRIGHT.

The late Mr. G. T. Miles.—The obituary notice on page 374 of the late Mr. Miles will be read with much grief, as horticulture has by his death lost a thorough supporter. Many can claim a longer friendship with him than myself, but no one enjoyed his society more. The notice in THE GARDEN, which states that Mr. Miles received so much encouragement from his noble employer must be most gratifying to the great body of gardeners employed in this country. What a gain to the employer and the employed when such sympathy exists between them. Our late friend was always ready with his kindly advice and assistance to do all in his power to help those who needed it. I deeply sympathise with his family. We wished him a longer life to enjoy the rest that he had so well earned.—G. WYTHES.

Annual meeting of the National Dahlia Society.—This will be held in the North Room, Hotel Windsor, Victoria Street, Westminster, S.W., on Tuesday, the 20th inst., at 3 p.m. A meeting of the committee will be held at 2 p.m.—P. W. TULLOCH, *Hon. Secretary, Forest Cot, Balcombe, Sussex.*

The fruit industry of Great Britain.—The departmental committee appointed by Lord Onslow to enquire into and report upon the fruit industry of Great Britain held sittings on the 24th and 25th 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. Monro, Mr. Hodge, Mr. Vinson, Dr. Somerville, Mr. P. Spencer Pickering, M.A., F.R.S., the Rev. W. Wilks, and Mr. Ernest Carnsey (secretary). Evidence was taken from the following witnesses: Mr. J. F. Leaf, representing the Elementary Education Branch of the Board of Education; Mr. Frederick Keeble, Principal of the Horticultural Department of the University College, Reading; Mr. A. Buck, representing the Surveyors' Institute; and Mr. Vincent Hill, General Manager of the South Eastern and Chatham Railway, representing the Railway Clearance House.

Planting wall climbers.—In your issue of the 19th ult. you give an excellent illustration of *Hedera amurensis* on a wall at Hatfield. The photograph emphasises very well the only too common mistake which is made when planting climbing varieties of Ivy and other wall plants. The plants have been allowed to grow upwards from the time when they were put in, thus leaving bare and unsightly spaces uncovered on the lower portion of the wall. If the growths of each plant were trained out horizontally on either side along the base of the wall, by subsequent development the whole surface would be covered. Attention to this small but important detail at the time of planting will avoid the unsatisfactory result shown in your illustration.—F. H. MATTHEWS, *Knapp Hill, Surrey.*

Deutzias for forcing.—Among the "Answers to Correspondents" in THE GARDEN for November 26 reference is made under the head of *Deutzia gracilis* to the great value of *D. candidissima* as a shrub for forcing. It is, indeed, a beautiful flowering shrub; but being a variety of *D. crenata*, which blooms naturally out of doors about midsummer, it cannot be had under glass as early as *D. gracilis* and the nearly allied forms. A hybrid variety—*D. Lemoinei*—has in many parts of the country not fulfilled the expectations that were formed of it as an outdoor shrub; but for forcing it is one of the most useful of the entire genus, though for this purpose *D. gracilis* is second to no other. *D. Lemoinei*, just alluded to, was obtained by M. Lmoine of Nancy by fertilising the flowers of *D. gracilis* with the pollen of the Chinese *D. parviflora*, a comparatively recent species. From *D. gracilis* the newer *Lemoinei* differs in being altogether a larger, stouter, and straighter grower, while the individual flowers are large and pure white. It is now an established favourite for forcing, and large numbers of it are grown by some of the Dutch nurserymen who make a speciality of shrubs for this purpose. A form of this, known as *D. Lemoinei compacta*, is announced by M. Lemoine, but of its forcing qualities I cannot speak from experience, though in growth it is certainly more compact than the type.—H. P.

Chrysanthemum indicum (Linn.). Among the Chrysanthemums in No. 4 greenhouse at Kew at the present time is a group of *C. indicum* on one of the side stages. This is one of the parents of the most popular flower of autumn. It seems almost incredible that a plant can be so changed by the hybridist and cultivator. The original plants from which these are cuttings were raised

from seed collected by Mr. Grant Birch in the Yangtze Valley above the rapids. It is a widely distributed plant in China and Japan. Extremely variable in a wild state, it has at various times had at least five generic and a dozen specific names. Three figures are given in the *Botanical Magazine* under the name *C. indicum*—tab. 7874 is the subject of this note; tabs. 327 (dark red) and 2042 (changeable white) are now both referred to as *C. morifolium* (Ram). The plant is of rather slender and straggling growth. Cuttings rooted in December and pinched several times will form bushes 3 feet 6 inches high and as far through by the flowering season. The plants which are the subject of this note were grown from cuttings rooted in March and pinched once. They are in 6-inch pots and about 2 feet in height. The flowers are single, slightly larger than a shilling, and of a pleasing yellow colour.—A. OSBORN.

Some good winter flowers.—Those who possess glass houses naturally like to see them filled with the brightest and showiest plants possible at this time of year, when the outdoor garden has lost its interest, or at any rate its attractiveness. In the group of plants shown at the

semi-double; Winter Cheer, with more red in its colouring, semi-double, and wonderfully free flowering; Julius, double, bright pink, very free; and Mrs. Heal, single, bright rose. Agatha is a miniature Gloire de Lorraine, but the flowers are redder, and Cyrene has drooping double flowers, best described as salmon-pink. John Heal may be said to be a bright rose-coloured form of Gloire de Lorraine.—Y. Z.

TREES AND SHRUBS.

VERONICA TRAVERSII.

THE shrubby species of Veronica form an exceptionally interesting group. Unfortunately, they are not very hardy, and, as a whole, are not to be depended on except in the warmer parts of the country. In Devonshire, Cornwall, South Wales, and other places it is a common thing to see great bushes of *V. speciosa* smothered with purple flowers, and very fine they look.



VERONICA TRAVERSII AT KEW.

Horticultural Society's show last week by Messrs. James Veitch several were remarkably bright, and deserve a note to bring them prominently before your readers. Among them are *Lindenbergia grandiflora*, a plant some 18 inches to 2 feet high, with *Salvia*-like leaves and drooping, yellow flowers. This plant belongs to the Snapdragon family (*Scrophulariaceae*), and is a native of the Himalayas. It is given in the Kew list of "Hardy Herbaceous Plants." *Reinwardtia tetragyna* made a brave display with its large bright yellow flowers, a good deal like Evening Primroses, produced in a loose terminal head. This plant used to be grown much more than it is now, and for the sake of its value in the conservatory at this time of year deserves extended culture. *Jacobinia chrysostephana*, bearing terminal heads of erect, tubular flowers of a glowing orange-red colour, is also most valuable at this time of year. Among the winter-flowering Begonias, most of them hybrids between the tuberous and the fibrous-rooted sorts, some of the best are Ensign, with deep rose-pink blooms; Winter Perfection, rather lighter in colour,

About London, however, it is impossible to grow *V. speciosa* out of doors the whole year round, and of the forty or fifty species in cultivation, very few can be said to be sufficiently hardy to stand unharmed through a winter of moderate severity. At Kew *V. Traversii* is found to stand the best, though in a very severe winter it is damaged, but when a succession of mild winters is experienced it becomes strong and sturdy, and grows into a bush 2½ feet or 3 feet high and 3 feet to 4 feet through. Like the other shrubby species, it is from New Zealand.

The leaves are small and deep green, the flowers white with purplish anthers, and borne in short, stiff racemes in summer. The accompanying illustration is of a specimen growing near the Temperate house at Kew. In places where these New Zealand Veronics thrive they should be grown in quantity, for they are beautiful when in flower, good evergreens, and give little trouble. They thrive in ordinary garden soil, and grow naturally into shapely specimens.

W. DALLIMORE.

RHODODENDRON LUSCOMBEL.

This is a most graceful Rhododendron. In April the shrub is covered with bell-shaped blooms of a bright rosy pink, the trusses being large and loose, and very charming with the pale glaucous green foliage.

County Donegal. S. M. WALLACE.

TREES AND SHRUBS WITH COLOURED FOLIAGE.

(Continued from page 378.)

EUONYMUS.—For the warmer parts of the country the variegated forms of *E. japonicus* are useful for beds and other purposes, all the varieties, gold and silver, being good. *E. europæus* var. *atropurpureus* is the best of the coloured leaved forms of the Spindle tree, and is useful for the back of a shrubbery, while the several varieties of *E. radicans*, which have variegated leaves, are useful for forming carpets under trees or for planting in the front of a shrubbery. The variety Silver Gem is useful for planting in beds.

FAGUS.—There is quite a number of varieties of the common Beech, *F. sylvatica*, with bronze or purplish leaves and one or two with variegated leaves. Of the varieties the most distinct are: *F. s. atropurpurea* and *F. s. purpurea major*, with deep purple leaves, *F. s. var. tricolor* with tricoloured leaves, *F. s. variegata* with cream variegation, and *F. s. var. Zlatia* with golden leaves.

FRAXINUS.—Very few of the Ashes have variegated leaves, but there are a few which are worthy of notice. The best are *F. americana* var. *aucubifolia*, with golden variegated leaves; *F. a. var. argentea* variegatis, with silver variegation; and *F. excelsior* var. *foliis argenteis*, with white variegated foliage.

HEDERA.—The variegated leaved Ivies are well known, and whether in the climbing or tree forms they are equally useful. The tree forms, both gold and silver, are extremely useful for forming beds, the two varieties Silver Queen and *arborescens foliis aureis* being specially worthy of mention.

HIBISCUS.—The variety of *H. syriacus* known as variegatus has silver variegated leaves and is a useful shrub.

ILEX.—The numerous variegated varieties of the common Holly are all worthy of cultivation, and most of them are well known.

JASMINUM.—The golden leaved form of *J. nudiflorum* is pretty when in leaf, but is not worth cultivating on a large scale. The same may be said of the variegated form of *J. officinale*.

KERRIA.—The silver variegated form of *K. japonica* is worth growing in the milder parts of the country; in cold districts it is often damaged by frost.

LABURNUM.—*L. vulgare* var. *foliis aureis* is a golden leaved Laburnum of considerable merit, the leaves being well coloured, and retaining their colour through the greater part of the summer.

LIGSTRUM.—The usefulness of the golden leaved form of *L. ovalifolium*, which is commonly called the golden leaved Privet, is well known. It is useful alike for beds, shrubberies, or hedges, and grows well under almost any conditions. The variegated leaved forms of *L. vulgare* and *L. sinense* are not of much value compared with the above.

LIRIODENDRON.—The Tulip Tree is not very often met with in a variegated form, but there is a well marked variety known as *L. tulipifera* var. *aureo-marginata*.

LONICERA.—The only variegated Honeysuckle of any note is *L. japonica* var. *aureo-reticulata*. It is a very pretty golden variegated shrub, and is useful for a small bed or for planting against an old tree root, over which it can spread its tangled branches.

NEILLIA.—*N. opulifolia* var. *lutea* is a handsome golden leaved subject, and as it is a strong grower it is suitable for the back of the shrubbery or other similar position. The best coloured leaves



RHODODENDRON LUSCOMBELI AT ARDNAMONA, LOUGH ESKE, COUNTY DONEGAL.

are borne on young shoots, so the old wood must be kept well thinned.

OSMANTHUS.—The numerous varieties of *O. Aquifolium* are all of horticultural value, and as they are evergreen and neat growing they make excellent subjects for beds. The two best of the coloured foliageed ones are *O. A. ilicifolius purpureus*, with purplish leaves, and *O. A. i. variegatus*, with white variegated foliage.

PHILADELPHUS.—The Mock Oranges have two representatives in the group, *P. coronarius foliis argenteo-variegatis*, with white variegated leaves, and *P. c. var. aureis*, with golden leaves. The latter is the better of the two, and the colour is finest in early summer.

POPULUS.—Several of the Poplars have coloured foliage and are useful for forming groups, as they grow quickly and make large specimens. The white Poplar and its variety *nivea* have grey leaves, *P. balsamifera* var. *variegata* has golden variegated leaves, *P. canadensis* has whitish leaves, and *P. deltoides* var. *aurea* has golden leaves. These are the most showy.

PRUNUS.—*P. cerasifera* var. *atro-purpurea*, otherwise known as *P. Pissardi*, has purple leaves and is a very useful plant, as it always looks well and can be grown either as a tree or bush. The purple leaved Peach, *P. persica* var. *foliis rubris*, is also useful. There are many other variegated Prunuses, but they are of no horticultural value.

PTELEA.—The golden variety of the Hop Tree, *P. trifoliata* var. *aurea*, is well worthy of cultivation; the leaves have a pretty gold colouring, and the plant is worthy a place in a mixed shrubbery.

PYRUS.—There are several species of *Pyrus* with grey foliage, *P. salicifolia* being one of the best.

QUERCUS.—The Oaks are not prolific in variegated foliageed varieties, though there are several of considerable merit. The following are the best: *Q. Cerris* var. *variegata*, with silver variegated leaves; *Q. pedunculata* var. *aurea leucocarpa*, with pretty golden leaves; *Q. p. var. purpurascens*, with purplish leaves; and *Q. rubra* var. *aurea*, with golden leaves.

RHAMNUS.—*R. alaternus* var. *angustifolia variegata* is the best of the variegated varieties. It makes a neat evergreen with silver variegated leaves.

ROBINIA.—*R. Pseud-acacia* var. *aurea* has golden leaves. It is an excellent tree to plant in a mixed

shrubbery, as the light foliage relieves that of a heavier character.

ROSA.—What few variegated foliageed Roses there are of little value, but the purple leaved *R. rubrifolia* is worth cultivating.

SAMBUCUS.—The Elderberries are represented by several coloured leaved varieties, the best being *S. nigra* var. *aurea variegata*, with golden variegated leaves; *S. n. var. foliis aureis*, with golden leaves, the common Golden Elder; and *S. racemosa* var. *foliis aureis* and *S. r. var. plumosa aurea*, both with pretty golden leaves. All are useful for masses.

SANTOLINA CHAMECYPARISSUS.—The Lavender Cotton has silvery leaves and makes a dense mass. It is very useful for beds or masses and rarely exceeds 1 foot in height.

SYMPHORICARPUS ORBICULATUS VAR. VARIEGATUS has golden variegated leaves and is useful for a change.

ULMUS.—Several of the Elms have golden or white variegated leaves and make fine trees. The best are *U. campestris* var. *latifolia variegata*, with large white variegated leaves; *U. c. var. Louis Van Houtte*, with golden leaves; *U. c. variegata*, with white variegated leaves; *U. c. viminalis variegata*, with small silvery leaves and fine twiggy shoots; and *U. montana* var. *aurea* with golden leaves.

Although there are numerous other shrubs with leaves of other colours than green the above-mentioned are the best. W. DALLIMORE.

RHODODENDRON YUNNANENSE.

A COLOURED plate and the following description of *Rhododendron yunnanense* appear in *Flora and Sylva* for December: "The Rhododendros found within recent years in central China have not only enriched our gardens with hardy kinds of great beauty, but have opened new fields to the raisers of garden varieties in a series of plants of a character quite unlike many of those previously known. From the work of Hooker in northern India that region was long considered as the chosen home of the Rhododendron, but of late years this estimate has been modified in view of the discoveries of MM. David and Delavay in Yunnan and Dr. Henry in south-west China. Their gains have proved that the area in Asia covered by the Rhododendron is wider than at first supposed, reaching eastward

from the Himalayas, through Thibet, into China and Manchuria. The Chinese Rhododendrons are remarkable for their variety of form, and are so completely distinct from those of the Himalayan region that only one or two kinds, out of more than forty now described, are common to both areas. Though amongst these new species there are many kinds which only interest the botanist, some are good plants, beautiful in flower, hardier than most of the Indian section, and certain when they become more plentiful to prove of value in our gardens and shrubberies. Rhododendron yunnanense is one of these beautiful hardy shrubs which was found by Abbé Delavay upon the mountains of Yunnan, and raised from seeds gathered and sent to Europe by him. The plant first flowered at Kew in April, 1897, and has improved with every season, being especially fine this spring when Mr. Moon secured his picture. It is an erect shrub, loosely branching into slender shoots, with scanty leaves of dark green, slightly hairy upon the margin and upper side, and covered beneath with dark glandular dots upon a pale grey surface. Its beautifully marked flowers are nearly 2 inches across when expanded, and borne in profusion as little clusters of four to six blooms; coming somewhat late—from the middle to the end of May—they escape the spring frosts which so often spoil earlier kinds. The spray seen in our plate is that of a pale variety of yet finer effect than the original plant, whose lilac-coloured flowers are shown as a small detached cluster. The plant is hardy at Kew, flowers freely while quite small, though it promises to make a good-sized shrub, and would appear to be of easy increase from cuttings. It received an award of merit in May of last year when flowers were shown before the Royal Horticultural Society by Mr. Moore of Glasnevin, and its value has been so proved as to assure its place among hardy Rhododendrons."

RHODODENDRON MANGLESII.

This beautiful Rhododendron flowers in April and May. It is a cross between *R. Aucklandi* and a hybrid named *album elegans*. The flowers are white, upwards of 4 inches across, with purple spots, and are developed in large trusses. It was named after Mr. Mangles, so well known in connexion with the culture of Rhododendrons. S. M. W.

INDIAN SUMMER.

NOVEMBER is a much abused month, and most unjustly so. In this part of the world it is often a time of pleasant outdoor weather.

October, so belauded by the poets, is a month of gales, of much damp and gloomy weather, of sharp frosts and dismal fogs, varied, it is true, by days that are ideal in brilliancy of colouring, when the crisp air is a joy to breathe.

But if October is a month of changes, of upheaval, and destruction, and of the beginning of a new order of things, November often comes to us in a soft and pensive mood, as if she were grieving for the death of the flowers, and longed to delay a little while the avertless approach of winter.

In my last letter I did not mean to convey the impression that the garden is quite stripped of bloom and beauty. If November seems to grieve over the many flowers that her boisterous brother October has laid low in his wild sport, yet she has some of her own which she cherishes tenderly. How sweet still are the beds of Mignonette, of Candytuft, and Sweet Alyssum in these golden afternoons. How we prize the few pale Roses here and there in the long borders, or the round beds on the lawn, where the Rose bushes are making a new start, too late, alas! for much fulfilment for

all their brave show of buds and tender green leafage.

Some Nasturtiums still venture a few belated blossoms; the Marvel of Peru is still "Pretty-by-night," which is its common name among the country folk, and the Dahlias, Marigolds, and a few Cannas are still in evidence. Also the handsome *Nicotiana sylvestris* is perfuming the evening air in its border. It has a large colony of thrifty seedlings, which it seems a pity to expose to the killing effects of the first black frost. But our facilities for keeping tender plants over are limited. This is not our winter home, and we do not try to carry over many plants. However, we have potted a few *Nicotianas*. They do not bloom with us the first year from seed unless the seedlings are started very early in the house.

Exceptionally fine are some groups of *Tritomas* in the rock garden, where they stand in a blaze of sunshine. I have never known them send up such tall flower-stems or so many of them. They seem to improve with age. We mulch them with manure every autumn, and protect with a covering of leaves.

Some Asters are still in flower. One of these that is valuable for November bloom is *Aster trinervis*, so called from its conspicuously three-veined leaves. This Aster grows from 2 feet to 3 feet in height, and is now pretty with its close heads of large purple flowers.

Aster tartaricus is an Asiatic Aster that is valuable for late autumn. When well grown it forms a noble-looking plant, 5 feet or 6 feet in height, with large leaves, and many stems crowned with clusters of beautiful purple flowers in dense heads.

I have read so many charming descriptions of English rock gardens that I always mention my own attempts at rockery planting with diffidence. The problem that I have before me now is how to plant a very rocky bit of waste ground west of our little Dutch garden. Flat-topped limestone rocks crop out of the ground here and are much overrun by Trumpet Creeper and other trailing and climbing plants. It is necessary to pass this wilderness to get to the little brick-edged

garden where we plant our Tulips, Hyacinths, and many other spring blossoms; and we wish to tame and cultivate, as far as possible, this neglected spot, without resorting to the strenuous work of blasting and removing the rocks.

There are some hopeful-looking crevices between these huge old limestone slabs, and these we have filled with the commonest and least exacting rock plants, such as some hardy single Pinks, creeping Phloxes, Rock Cress, and the very hardy and useful creeping *Veronicas*.

A pretty little *Daphne Cneorum* is now in profuse bloom at the base of one of the ledges. We must enjoy its beauty while it lasts, for we have never succeeded in keeping a plant of this or any other *Daphne* very long at Rose Brake.

We have made some irregular paths through this new rockery, and lined them with some of the flat slabs of rock taken out of the soil in the process of digging the ground. These paths are now bordered with fresh plantings of *Aubrietias*, hardy *Alyssums*, and many other kinds of plants, with colonies of *Snowdrops*, *Chionodoxas*, and other bulbs.

When a box of these spring bulbs comes from the dealer it often requires some study to decide how to plant them to the best advantage. There are few better places for many of them than the sides of a grassy path in the wilder parts of one's pleasure grounds. The path through a shrubbery of evergreens to the north of the house has had many colonies of *Narcissi*, *Snowdrops*, *Winter Aconite*, *Crocus*, and other bulbs planted on both sides of it between the evergreens. Here, too, are groups of *Irises*, *Dicentras*, and other early bloomers.

Pardanthus chinensis, mentioned in THE GARDEN not long ago as a very rare plant in England, has been so freely planted in this neighbourhood that it has naturalised itself in woods and waste places near old houses. We have it in our wild garden. Left to itself it will encroach on choicer flowers and take up room out of all proportion to the beauty of its bloom. It flowers in midsummer, and harmonises well with *Lilium pardalinum* and *Hemerocallis fulva*, which are its neighbours. We also have much *Cassia marylandica* blooming at the



RHODODENDRON MANGLESII AT ARDNAMONA.

same time, a graceful perennial, a native of our marshlands, with pretty pinnate foliage and racemes of bright yellow and black blossoms. The plants die down to the ground every year.

One should live in or near a bit of woodland in which are many white and scarlet Oaks, Tulip trees, Beeches, and Birches, to realise what one of our poets means by the expression "bright-haired November." There is a wonderfully sunny effect about the foliage of these trees, which is intensified by the contrast of many groups of our sombre red Cedars (*Juniperus virginiana*), which grow among them. The red Cedar is our only indigenous evergreen, although we are only a few miles from the "Pine Hills," which are covered with white Pine and Spruce. These evergreens flourish in the slaty soil of our nearest mountain slopes and foothills, but are not found in the stiff clay and limestone of our immediate neighbourhood. The poet who sings of the Golden-rod has given this tender description of the American Indian summer:

"Yes, the sweet summer lingers still;
The hazes loiter on the hill;
The year, a spendthrift growing old,
Is scattering his lavish gold
For a last pleasure.
The robins flock, but do not go;
We share the wood with footsteps slow,
In sober leisure;
Or sit beneath the Chestnut tree,
Our hands in silent company.
Not yet, dear friend, we part not yet,
Full soon the last warm sun will set,
The cricket cease to stir the grass,
The gold and amber fade away,
The scarlet from the landscape pass,
And all the sky be sodden grey.
Too soon, alas! the frost must fall,
And blight the Asters on the hill,
The Golden-rod, the Gentians, all,
And we must feel the parting chill;
But oh! not yet, not yet we part,
The summer strains us to her heart,
The world is all a golden smile,
And we may love a little while,
The summer dies, and hearts forget,
And we must part, not yet, not yet."

DANSKE DANDRIDGE.

Rose Brake, Shepherdstown, West Virginia, U.S.A.

LILIES IN A NORTH COUNTRY GARDEN.

(Continued from page 374.)

LILIUM AURATUM, longiflorum, speciosum, and their varieties will not flourish here. They flower once and once only. After that they make a weak growth for a year or two and then disappear. I am going to try a couple of bulbs of the Shirley variety of auratum platyphyllum, which I hope may do better. *L. candidum* does very well in a sunny position, and I have never seen any trace of disease. The clumps are mulched every year with cow manure as soon as flowering is over. *L. Brownii* is very erratic. I have four clumps of it, of which two bloomed well this year. The flowers were large and very handsome. The other two clumps did not make any growth. They bloomed last year and are taking a year's rest. I find this frequently happens here with this Lily. Three spikes of *L. giganteum* bloomed this year fairly well. Other bulbs of this Lily have been planted two and three years, and though making strong leaf growth each year they have not yet flowered. I hope they will do so next year. *L. croceum* is always good either in sun or shade, in wet or dry seasons, and makes steady increase. *L. elegans* I have tried in several varieties, but for the most part they have shown a strong tendency to dwindle away. Three forms, viz., Orange Queen, Willie Barr, and robustum are, however, doing well and increasing. Orange Queen is a particularly fine form, with large, well shaped orange flowers. It grows about 1 foot high, and is a first-class Lily for a low rockery. *L. umbellatum* (davuricum) in several varieties

always does well and increases. I think that erectum and incomparabile are the best forms, and one or both should be grown for a fine display of bright orange and red flowers in June. *L. Grayi*, canadense, flavum, and superbum all do moderately well. They have been planted three years, and bloomed better this year than in the two previous years. I have had *L. washingtonianum* in bloom for three years in succession, and it seems to be well established. The best spike this year had fourteen fine blooms. The bulbs are planted deep in a mixture of peat and leaf-mould at the foot of a low, well shaded bank. *L. w. purpureum* has also bloomed for the last three years. The best spike this year had six flowers on it. It is also planted deep in peat and leaf-mould.

A clump of five *L. rubellum* gave me three flowering spikes both last year and this; it is a lovely flower. I shall try more of it next year. *L. Henryi* was till this year disappointing, as the flowers did not come into bloom till late in September, and most of the buds were cut off by early frosts in October, but this year it has been quite satisfactory, the first flower opening on August 15. I have three clumps planted on a low rockery, and the stems lightly staked bend over somewhat gracefully. It did not do so well in the border. This Lily should be planted deeply and well manured as it makes very strong stem-roots.

A clump of two dozen *L. tigrinum splendens* made a brave show in September, followed shortly afterwards by a clump of *L. Fortunei* major. Both should be planted fairly deep.

I have failed completely with *L. Batemanniæ*, *L. Leichtlini*, *L. tenuifolium*, *L. Krameri*, and *L. Parryi*. The last mentioned I have tried three times planted in sandy peat, both in sun and shade, but so far without success, possibly from want of management.

It will be seen from the above that I have had many failures, but also a fair amount of success, and as the failures are easily forgotten while the joy of success remains, the pleasure of growing these delightful flowers far exceeds the inevitable disappointments.

South Bailey, Durham. T. MADDISON.

NOTES ON HARDY PLANTS.

SCABIOSA CAUCASICA AND ITS VARIETIES.

COLONIES of the Caucasian Scabious in good condition are a source of great pleasure in late summer, the large mauve-tinted, long-stemmed flowers, in loose sheaves 2 feet or more high and 3 inches across the petals of each, are a real boon to the decorator and a great show that one cannot fail to admire. Occasionally one finds this Scabious stubborn to manage, especially in heavy clay soils, where cultural skill seems powerless to encourage it to grow well. Generally, however, it thrives like a weed, and many old-established clumps exhaust themselves in the effort to flower beyond their strength, and are only recuperated by a liberal mulch of new soil and old manure as the young growths develop in spring. There is a white form which, to my mind, is scarcely so good a plant as the typical mauve, and improvements on both known as perfecta and perfecta alba, whose ray florets are much flattened and enlarged, the margins being deeply cut, giving the flowers greater size, and adding greatly to their beauty. These newer forms do not differ from *S. caucasica* in vigour, the only difference being size of flower and breadth of petal, and it is impossible to distinguish much difference between well-grown caucasica and badly-grown perfecta; but treated alike, and both liberally, there is a

great gain in the perfecta forms that should do much to render this Scabious even more popular than it is to-day. The white perfecta is a purer white than caucasica alba, and an altogether better plant. G. B. M.

PERENNIAL STATICES.

THERE are some excellent rockery and border plants among the perennial Statice, yet with the possible exception of *S. latifolia*, the familiar Sea Lavender, few of them are put to any effective use, their lasting qualities, undoubted hardihood, and comparatively showy inflorescences being entirely overlooked when planting time comes round and there are blanks to fill. Of rockery species there are several. *Besseriæna*, a rosy purple flowered plant of neat habit; *incana* and its form *nana*, in shades of red, with pretty rosettes of hoary leaves as tough as leather; *speciosa*, whose reddish flowers in silvery calyces are arranged in flat panicles 1 foot across, and whose young leaves are purple tinted; and *altaica*, a dainty Siberian species, with flowers of the richest blue, are among the best of perennial kinds, sufficiently neat in habit for rockery planting.

Border species of stronger growth that are effective in the mass, and which will yield excellent cut sprays that one can use effectively in all kinds of floral decoration, would include *Fortunei*, less tall than most, but extremely pretty when massed, the yellow inflorescences growing 1 foot high; *S. Gmelini*, a rampant grower, and extremely light and graceful in the inflorescence, the flowers a rich shade of violet; *latifolia* and *Limonium*, familiar border plants that are always admired in the flower border, and of real value for cutting, give us blue and grey shades respectively in masses of elegant inflorescences 3 feet across in old-established specimens. There is no difficulty in cultivating Statice, all grow with tolerable certainty in even poor soils. All are easily raised from seeds or increased by root cuttings 1 inch long, being plunged in a bed of sand, where they will root and grow on the slow but sure principle. Statice are not among the showiest of border plants, but they help considerably to fill the flower vases both in summer and (in a dried state) in winter, and one cannot use them too freely to break up and lighten dense masses of colour. G. B. M.

VERBASCUM PHENICEUM.

THE Mulleins are generally acceptable in gardens, the tall stature, imposing appearance, and distinctness of some of the taller species rendering them of considerable importance from a decorative point of view. Many of the most showy have yellow flowers, but there are some species with flowers of a different colour, which may be of considerable value in the border. Among the latter one may well consider *Verbascum phœniceum*, commonly known as the blue-flowered Mullein, although this name is now rendered inappropriate by the introduction of new colours in the plant.

The type, however, has a yellow ground, which is striped with violet. The other colours now secured are generally more beautiful, some of these being white, copper, and various shades of yellow and violet. None is so beautiful as the pure white variety, the purple stamens giving an air of distinction to the plant and forming a good contrast to the purity of the flower. Some of these coloured forms are procurable from seeds, which are often sold as hybrids of *V. phœniceum*, but I fail to see any evidence of hybridisation, and I feel positive that they are merely the results of variation and selection from the typical *V. phœniceum*.

Verbascum phœniceum is a useful flower for the garden, although it becomes a little untidy towards the close of the term of flowering of each spike. It grows from 2 feet to 3 feet high, sometimes even a little more, and has somewhat oval lance-shaped, roughish leaves at the base of the plant in the shape of a rosette, and smaller stem-leaves, which are sessile and alternate. The flower spikes gradually open, beginning at the bottom of the spike. As those at the base are over before the upper ones expand, the

plant becomes rather bare below, so that the spikes ought to be cut off when rather more than half expanded. The plants will then throw up fresh flowers and the season of bloom will be still further prolonged, while the effect will be much better than if the flowers were allowed to remain until all were exhausted.

Although *Verbasum phœniceum* is hardy in ordinary circumstances, there are some cold and wet gardens with stiff soil where it proves rather unreliable in winter. There it may be treated as an annual, sowing seeds under glass as early in spring as possible, and planting out in May. It is very easily raised from seeds, and a large stock may soon be secured in this way. In light soils the blue-flowered Mullein sows itself freely enough, and the writer has reason to consider it too prolific in his own garden. It is, however, a beautiful and distinct plant when at its best, and one would not willingly be without its ornamental effect in the garden. S. ARNOTT.

CHRYSANTHEMUMS.

FRENCH CHRYSANTHEMUMS.

AMONG some of our plant introducers twenty years ago or more it used to be a subject of complaint that many of the novelties sent out with a glowing description of their merits failed to realise the expectations that were formed of them when they were grown here in England. It was pointed out that this was not necessarily the result of intentional deception on the part of the raisers, but may have been attributable to differences of culture or of climate. Even a visit to France by anyone accustomed to appraise the value of novelties does not always result in complete satisfaction, and it is notorious that new things may be shown well at the French shows and yet for some reason fail almost entirely here. While on the Continent last year I had excellent opportunities of seeing most of the season's novelties from all sources, and it may be useful to record the names of those noticed good there and which have also done well this season under English treatment. Several of the foreign raisers are not largely represented, and most of the novelties of foreign origin are those received from M. Ernest Calvat, the eminent grower of Grenoble. These are all in the hands of our leading trade specialists.

Among them the following were shown at the Paris show in 1903 in promising form, and also here this year: Mme. Marguerite de Mons, Mme. R. Oberthur, Marquise Visconti-Venosta, and Mlle. Anna Debono. The like may be said of Calvat's seedlings shown at Lille, which included *Chrysanthemiste Rémy* and *Jos. Paquet*. Among Nonin's seedlings at Lille there was *La Gracieuse*, an incurving flower of pale pearly pink that seems to be equally good in England. It must not, however, be forgotten that home and colonial competition is nowadays much keener than it was in days gone by, and that public taste and exhibitors' vagaries have much to do with the degree of appreciation that is bestowed upon even the most promising novelties. C. H. P.

NEW JAPANESE CHRYSANTHEMUMS.

NOVELTIES are more numerous this season than usual. Although from the lists that have been published from time to time during the flowering season the different floral committees may appear to have been somewhat lavish in the making of their awards, this is not so. Novelties must possess much that is attractive in addition to certain essential points of quality if they are to be recognised with an award of merit or a first-class certificate. As raisers know only too well, many excellent seedlings and sports have been passed over for some good reason. The standard of quality is now much higher than it was a year or two since, and the raising of the standard is undoubtedly a step in the right direction. Varieties that are worthy of note and that may supplement those referred to in THE GARDEN of October 29 last are the following:

Mrs. A. H. Lee.—This is a seedling submitted to the National Chrysanthemum Society's committee by Mr. N. Molyneux of Rookesbury Park Gardens. When compared with other Japanese of a crimson colour this handsome exhibition flower stands pre-eminent. Rich crimson, with golden reverse, is a proper description of its colour, and the flowers are large and spreading. The Japanese bloom of the present season exceeds in beauty that of Mrs. Chas. Davis. The glorious orange-yellow colour is most effective, and the flower is also very elegant. Mr. Norman Davis staged six blooms at the Crystal Palace at the National Chrysanthemum Society's November show. This variety is the result of a cross between Duchess of Sutherland and J. R. Upton, two well-known exhibition flowers. A Japanese flower of ideal form is that of

Mrs. A. T. Miller.—This is a pure white seedling from the popular variety *Miss Olive Miller*, having broad, curling petals. For exhibition the flowers should be in demand, as the form is really charming. Long petals of medium width build a reflexed bloom of drooping form, and the colour is mauve-pink on a white ground. The last two varieties were raised by Mr. George Mileham, Leatherhead, who has been very successful in recent years. Another Japanese bloom of good form and solid build is

W. A. Hetherington.—In this case the petals are long, and broad also. The colour may be described as rosy mauve, with a white centre. Mr. N. Molyneux has also given us another very fine flower in

Mrs. T. Dalton.—This variety came before the National Chrysanthemum Society's floral committee on the 21st ult., and received the coveted first-class certificate. It is a large flower of Japanese reflexed form, having fairly long petals of medium width. The colour may be described as rosy crimson, with a bronzy buff reverse, and is one that should find ready acceptance. Another promising crimson sort from the same raiser is

Mrs. A. Arnold.—This flower lost somewhat by being staged with the blooms of Mrs. A. H. Lee. A grand pale yellow Japanese named Mrs. E. Crossley is an exhibition flower of considerable promise. The petals are broad, twisting and curling, 8 inches in breadth, and 8 inches deep.

Josephine Rousset is a most effective flower of a lovely rosy amaranth colour, and a distinctly beautiful shade of these colours, too. The form of the flower may be accurately described as Japanese reflexed, and, though not so large as some others, it is quite large enough. This is one of the best of the continental introductions. A creamy white seedling of great promise is

Mrs. W. Elliot.—The petals are prettily twisted and curling, and, together with a primrose-coloured centre, make a refined exhibition bloom. A plant of a dwarf kind is the new

Lady Lenard.—This is a good plant for grouping, and at the same time develops good exhibition Japanese blooms of a pleasing incurved character; large, full flower of a terra-cotta bronze colour.

President Viger.—Although not so new as the others this deserves special mention. Mr. F. S. Vallis in his superb display at Sheffield staged three blooms in the vase class in better condition than it has ever been seen before. The blooms were large, and the broad petals were a bright purplish rose, with silvery white reverse in colour. The glorious yellow *Beauty of Leigh* is now a favourite, although it is so tall. Mr. Norman Davis had this very beautiful at the Crystal Palace.

A Keston seedling is *Mrs. R. C. Pulling*. This is a refined flower, with long, drooping forelets of medium width, making a handsome exhibition specimen; colour rosy violet on white ground, with primrose centre. There are several other sorts, of which a review must appear at a later date.

THE "RUNDLE" FAMILY OF INCURVED BLOOMS.

THE National and other large metropolitan Chrysanthemum societies seem to forget that there are many pleasing types of the "Autumn Queen" that are seldom or never seen at their shows. Quite recently, when at Sheffield, I was struck with the

charm of a display made in a class for six blooms of the Rundle family. This family of the incurved type of the Chrysanthemum is represented by Mrs. George Rundle, white; Mr. George Glenny, primrose; and Mrs. Dixon, golden-yellow. The blooms are typical of what an incurved Chrysanthemum should be, and have a peculiar charm. They are of small to medium size, and in ordinary competitions are completely ousted because of their want of size. For this reason the Sheffield Chrysanthemum Society wisely provide a class for two blooms each of the three varieties above referred to, and this competition is confined to the members known as cottagers. The flowers have to be staged with at least 7 inches and not more than 9 inches of stem on show-boards covered with moss, and the effect is very pretty. At the show held on the 11th and 12th ult. there were no less than fifteen competitors in this class, and the display they made was one to be remembered. Eight prizes are offered in this one class, and to discriminate between the respective merits of the exhibits is no easy matter. Beautifully finished, even blooms of good quality led the van, well deserving the premier award. At the expense of sacrificing some of the classes for the larger blooms, which are much overdone, such competitions might be encouraged with advantage to the individuals as well as to the show itself. The decorative aspect of the Chrysanthemum as showing its general utility for house decoration and other purposes should surely be one of the primary objects of all societies.

D. B. CRANE.

NOTES FROM SCOTLAND.

THE GLASGOW PARKS.

WHATEVER season one may visit those Glasgow parks in which there are extensive glass structures one is certain to find much to interest the horticulturist. This winter there is no falling off, but rather an increase in plant attractions. New plants are added as opportunity offers, and the many specimens increase yearly in size and effect. A few notes at the present time may be acceptable.

QUEEN'S PARK.—In this, one of the finest of the Glasgow parks, there is a constant succession of flowers. From early in autumn until Christmas a Chrysanthemum display is provided, and this year the flowers have been excellent. In one of the houses there were about 4,000 large blooms. The varieties comprised the best of the older well proved ones, with a good selection of the more recent additions. A number of plants are also grown in a more natural way, i.e., without disbudbing. Unfortunately, the dense fogs with which Glasgow is afflicted are injurious to the *Cattleyas* and *Lælias*, but *Cypripediums*, *Odontoglossums*, *Masdevallias*, and *Dendrobiums* are all cultivated successfully. The useful *Cypripedium insigne* is extensively grown, and in the other parks there are many good forms. There is a large collection of *Odontoglossums*, and some of the best forms of *O. crispum* are cultivated. *Masdevallias* are also well grown, and good pans of *M. tovarensis* are very fine. I observed, also, good plants of *Stenoglottis longifolia*, an Orchid remarkably easily grown in a cool house. A good display is maintained by zonal *Pelargoniums*, grown for winter flowering, but the fog is very injurious to these at times. There are also many other winter flowers to succeed some of the above, *Kalanchoe flammea*, *Monochætum ensiferum*, *Ruellia macrantha*, and many others. Greenhouse *Rhododendrons* are largely cultivated here, and are showing well for bloom. Foliage plants, such as *Alocasias*, *Dracænas*, Palms, Ferns, and many others are always attractive, and a number of good seedling *Anthuriums* are coming on rapidly. Mr. M'iver deserves much credit for his work here.

TOLLCROSS PARK.—Mr. Wilson, another good plantsman, is in charge of this park, and the houses are always bright and repay a visit. Considerably less extensive than those at Queen's Park, they are no less interesting. Here Chrysanthemums, both large-flowered and decorative, are largely used, and

a long succession is maintained. Those with large blooms are well grown, and tops are struck in considerable numbers to suit the stages. Such single Chrysanthemums as Miss Rose are well grown.

Zonal Pelargoniums, as at the Queen's Park, are found very valuable, despite the effects of the fog. There are also batches of Cineraria Moorei, and C. stellata, which seem to be well cultivated at Tollcross. The winter-flowering Begonia is well represented. The variety Caledonia has had to be discarded owing to its want of vigour, but there were many splendid plants of Gloire de Lorraine; Turnford Hall, which is considered here the same as alba grandiflora, and the Rothschild variety. The latter has larger flowers, but is not so bright as the typical Gloire de Lorraine. Primula sinensis, both the large flowered and the stellata sections, and a fine strain of P. obconica are largely and well cultivated. A number of seedling Orchids of various classes have been raised and form a most interesting study. Among them I observed a nice lot of Cattleyas, Lycaste Uroskioneri, a fine lot of Odontoglossums, many good Cypripediums, Lælias, Oncidium, and Masdevallias. Among the hybrid Cypripediums raised here is one named Bailie W. F. Anderson, in honour of one of the civic dignitaries. The foliage plants are always good, and Ferns, Palms, and others are admirably done.

SPRINGBURN PARK.—The winter garden here is an excellent one, and a gallery in the centre of the houses provides a useful feature. Since Mr. Thomson, formerly gardener at Philiphaugh, took charge many improvements have been made, and it can now be said to be in line with the others under the direction of Mr. James Whitton, the superintendent of the Glasgow parks. A great improvement has been the planting out of a number of fine specimen Camellias in the central house. These are much appreciated. The whole effect of this house as seen from the gallery is very fine. The galleries are surrounded by stages on which are Primulas, zonal Pelargoniums, Marguerite Carnations, and winter-flowering Begonias, all admirably grown. There is a remarkably well-kept Fern house, where large plants are planted out and intermingled with Rex Begonias and other suitable plants. Orchids are well grown, while succulents and a varied collection of interesting plants of all kinds appeal to the tastes of every one. The Chrysanthemums here have been very fine.

THE BOTANIC GARDENS.—The improvement effected here since this establishment also passed under the control of Mr. Whitton still continues. Among the most recent improvements is the construction and planting of a somewhat extensive range of rockeries. In the course of a little time this should be a great attraction to these gardens. In the Kibble Palace, one of the features of the Botanic Gardens, the group of tree and other Ferns in the centre of the main building has grown vastly in beauty recently. There is a house devoted to Mosses, filmy Ferns, and Selaginellas. It has been entirely remodelled in a natural way. There is a remarkable collection of native Mosses, collected by the propagator Mr. Scott, who has made a special study of them. Space will not permit of further detail at present of the many good features of this establishment; but I may remark that the Orchids are finer than the writer has ever seen them here before, after an acquaintance with the place for many years.

THE FLOWER GARDEN.

PAMPAS GRASS (GYNERIUM ARGENTEUM)

FROM the South American plains comes the noble Pampas Grass, which is hardy in most parts of England. The grand tufts of foliage and immense feathery blooms have long been well known and largely used in our gardens and outer grounds. The plant is dioecious—that is to say, the male and female flowers are borne on different plants. They vary a good deal from seed, some having much more fully furnished plumes; they also vary a good deal in



FLOWERS (REDUCED) OF THE AMERICAN CARNATION LIZZIE MCGOWAN.

colour, some being of the usual warm white, while others are tinted with rose colour or faint purple. It is better, therefore, in setting up a stock to see them in bloom in the nursery so as to make sure of having a good strain.

R. DRAPER.

Seaham Hall Gardens, Durham.

CARNATION LIZZIE MCGOWAN.

It is surprising how popular the American winter-flowering Carnations have become during the last few years; they have taken the market by storm. Such sorts as Mrs. Lawson, Enchantress, Fair Maid, Royalty,

and others are beautiful flowers, and their want of scent is to a large extent made up by their long stem and rich, clear colouring. The variety Lizzie McGowan, of which we give an illustration, is a good free-flowering white Carnation, an American introduction. Hundreds of thousands of these Carnations are now grown for market, and one sees them in all florists' shops. The old varieties of Tree Carnations seem to have been altogether ousted by the newer sorts.

MONTBRETIAS.

THOSE who desire a fine display of these indispensable garden flowers next year should not longer delay planting. While they are not very exacting, there are one or two items quite worth attention. New, that is, freshly imported stock, provided always that the plants were properly harvested, may be planted over a somewhat lengthened period because of the check already afforded in the process of lifting. Much of the growth in the first year and, of course, the ultimate success of the plants depends upon the harvesting of the stock, and if the work is performed too late the new growths or shoots will be already piercing the soil. Such as these require more than ordinary care in replanting. On the other hand, when the new corms are more or less intact the planting season may be extended considerably. There is naturally some difference in the corms of these Montbretias, and not a little also in the time of their starting into growth. The new and charming M. rosea is quite distinct in corm, and is more like a small Gladiolus bulb. Such sorts as this take less harm when kept out of the ground, and the same remark applies to any variety that has not greatly extended its underground shoots.

It is another matter when dealing with the established clumps in the garden. These should be lifted where necessary, separated, and replanted at once. Too frequently a very indifferent method of planting is adopted simply because it is convenient—I mean taking a handful and planting them in a lump. Not only is this not a good way, but it is not likely to give good or even satisfactory results. These Montbretias cluster together naturally in the garden, and the planter in the beginning should have this in mind. Having well dug and prepared the ground, he should plant in the following way: Suppose, for example, a collection is being put in, say, a dozen of each kind. Each lot should be planted over a ground area of 15 inches or 18 inches, and if rather thin-looking in the first year the gain will be obvious later on, or he may dig out the soil 6 inches or 8 inches deep all over the area named. Next turn up and manure the lower soil. Level the soil, and then lay in the corms with runners intact. In heavy soils a good sprinkling of sand may be given to each lot before covering in. At the depth named the roots will be safe, and in course of time make a fine display. Deep and rather rich soil, with ample summer moisture, is what these showy plants prefer.

E. J.

AURICULA HENRY WILSON.

THIS is a fine green-edged variety raised by Mr. B. Simonite of Sheffield, and it was finely shown at the Midland Auricula Society's show at

Birmingham in 1903, when it was selected as the premier edged flower. It has a brilliant green edge, golden tube, and fine smooth paste, the pip stout and finely formed. It is being put into circulation at a high price, but not higher than its merits demand. R. D.

AURICULA ALPINE THETIS.

THIS is considered to be by some experts the best light centred alpine in cultivation. In the case of the show Auriculas there is, forming a zone round the tube, a circle of meal, over which is laid a delicate white farina, which will adhere to the finger when slightly touched by it. It is this peculiarity in particular which differentiates the show from the alpine Auricula. The presence of paste on the zone of colour, whether white, cream, or yellow, of the alpine Auricula is a weakness; there is no farina whatever on the centre of an alpine Auricula, if there were it would not be a true alpine. Nor is the tube considered, as in the case of the show type, but the stamens should fill up the throat of the flower, hiding the pistil from view. Thetis has a creamy white centre, and the shading on the margin salmon flushed with violet, and shading to deep purple. It is fairly prolific in offsets, but at present plants of it are very scarce. R. D.

CESTRUM AURANTIACUM.

LIKE many other greenhouse plants this evergreen shrub is most useful for summer bedding purposes. Cuttings inserted in August quickly root, and if

the plants can be kept gently growing throughout the winter they will be fit for use during the following summer. An occasional pinching will induce bushy growth. Lightly tied plants of pillar shape when used as "dot" plants supply an uncommon shade of orange, which can be effectively blended with most other colours. *Cestrum aurantiacum* may be described as an orange *Habrothamnus*; it is a good companion for the well-known *Habrothamnus elegans* (by some authorities included under *Cestrum*) for clothing the walls or pillars of cool greenhouses. When so used they should be planted out in a rich light soil and be copiously watered during the growing season. So treated it will grow freely and flower profusely. The flowers last well in a cut state, and, although scentless by day, they are very fragrant after dusk.

Bodmin.

A. C. BARTLETT.

THE ROSE GARDEN.

THE GARLAND ROSE.

AMONG the many ways of worthily using the free Ayrshire Roses, one of the best is to leave them to their own way of growth, without any staking or guiding whatever. Due space must be allowed for their full size, which will be a diameter of some 10 feet. Of these useful garden Roses none is more beautiful than the Garland, with its masses of

pretty blush-white bloom. It is well worth getting up at 4 a.m. on a mid-June morning to see the tender loveliness of the newly opening buds; for, beautiful though they are at noon, they are better still when just awaking after the refreshing influence of the short summer night.

Several others among the old Ayrshires are excellent in this way of growth, though perhaps there are none to beat the Garland and Dundee Rambler. A grassy space where they may be seen all round, or a place where the great bush may be free at least on two sides, is the most suitable, or they may be used as central or symmetrically recurring points in a Rose garden of some size. The young growths that show above the mass when the bloom is waning are the flowering branches of next year; they will arch over and bear the clusters of flowers on short stems thrown out at each joint. The way these young main branches spring up and bend over when mature is exactly the way that best displays the bloom. Each little flower of the cluster is shown in just the most beautiful way; and it is charming to see, when light winds are about, how the ends of the sprays, slightly stirred by the active air, make pretty curtseying movements arising from the weight of the crowded bloom and the elasticity of the supporting stem.

There is a whole range of use of these beautiful Roses, from this free fountain shape without



THE GARLAND ROSE OVER WALL.

any artificial support, to association with trees and bushes in shrub clumps and wood edges, and from that to clambering into the trees themselves.

Everything that has been said of the Garland Rose, as to its use as a fountain Rose or free climber, may also be said of Dundee Rambler, Bennett's Seedling, Félicité Perpetue, and others of the cluster Roses classed as Ayrshires. They are all worthy of use in these ways, and of being encouraged to clamber into trees and hedges. One cannot help observing how the support of a tree encourages almost abnormal growth. The wild Dog Rose will go up 20 feet, and Sweetbrier nearly as high; while almost any Rose that has at all a climbing habit will exert itself to the utmost to get high up into the tree.

ROSES ON A CHALKY SOIL.

I HAVE received a letter from "W. R. H." on this subject. It is well understood by Rose growers that a certain amount of chalk or lime in the soil is essential to the perfect cultivation of the flower. Indeed, many growers go to great trouble to obtain chalk in order to improve and sweeten and render more fertile the strong clayey soils of the country. When we remember that chalk provides a real plant food, and that it serves to counteract sourness in over-manured soils, we can readily understand that it is valued by the cultivator. But, of course, there is such a thing as having a soil in which chalk abounds in too large a proportion. It then becomes a question how to improve it.

The celebrated Rose garden of Mr. A. Tate, Downside, Leatherhead, is a splendid example of how far a chalky soil may be improved in order to cultivate good Roses. Here it was found necessary to remove the pure chalk, which in places came close to the surface, and replace it with imported clayey loam. I well remember visiting Downside, and was struck with the vigour of some Lime trees which I saw rooting into the pure chalk. Although it was found advisable to improve the Rose beds by adding loam, yet here was evidence that trees would grow even in the pure chalk.

I would strongly advise anyone with a chalky soil, who desires to grow good Roses, to add turfy loam to the beds or borders, mingling this with about equal parts of the natural soil, and at the same time to use cow manure freely, especially to the lower stratum of soil, say about 2 feet 6 inches beneath the surface. As a number of Roses may be grown in quite a moderate-sized bed, such preparation should not entail much outlay, and the value would be returned handsomely in beautiful Roses. To grow good Roses upon a chalky soil the plants should be budded upon a stock that is inclined to be surface rooting rather than penetrating. It is not at all necessary for the roots of Roses to run down deeply, providing they obtain the necessary food near the surface. American gardeners grow Roses under glass on benches in just a few inches of soil, but then the plants are upon their own roots, and the soil is well enriched with bone-meal.

The ideal Rose plant for a chalky soil would be that on its own roots. Such plants produce abundance of fine roots that may be kept near the surface by a system of mulching during the summer months; but as own-root plants are not readily procurable, the next best are those upon short standard Briars and Briar cuttings. In many sea-side gardens that I have seen where chalk abounds, I have invariably found the hedge Briar making splendid growth, especially when budded with Tea Roses. You say some individuals have recommended you the Manetti stock for Tea Roses. I would advise you to have nothing to do with this stock for this class, and even for Hybrid Perpetuals and Hybrid Teas I think you would do well to avoid it if you can obtain what you want on the cutting Briar.

Some Roses make better growth upon the Manetti stock, for instance, Uleter and Papa Lambert; but the true Teas should not be budded on Manetti, at

least that is my experience. Then, again, Roses upon this stock are so susceptible to Orange fungus and red rust, and in August, when plants on the Briar are beautiful in their lusty vigorous foliage, those on the Manetti are often shedding theirs.

The De la Grifferaie stock is useless where quality of blossom is desired. One may obtain big plants upon this stock, but of what use is that if there be no corresponding quality. For ordinary deep soils nothing can surpass the seedling Briar, but I repeat, upon shallow and chalky soils the Briar cutting and the hedge Briar are the best stocks for Tea Roses. There are three essential facts to remember by all who grow Roses upon chalky soils, namely, frequent transplanting, mulching, and watering. By transplanting the Roses in October every three or four years, renewing the beds and adding manure, the plants may be kept in a healthy condition for many years, even though the soil be shallow and chalky.

I would advise winter mulching, carefully digging this in in March. Then in May, when roots are very active, another mulch may be afforded. As to varieties those Tea Roses whose foliage are most persistent are the best for the garden. If you desire to have real good decorative masses for autumnal effect plant such sorts as Mme. Antoine Mari, Peace, G. Nabonnand, Sulphurea, Corallina, Marie d'Orleans, Marie van Houthe, and others; not forgetting the beautiful Hybrid Teas Mme. Ravary, Liberty, that queen of Roses Mme. Abel Chatenay, the grand new Pharisæer, Antoine Rivoire, and hosts of others. P.

CRIMSON RAMBLER ROSE.

IN reference to this Rose (page 295) I may say it disappoints many because it only flowers to perfection on the wood of the previous year. A plant here on a trellis throws up yearly, in spring, five or six strong shoots, from 15 feet to 20 feet long, which the following year are a mass of bloom. The old shoots are cut down to the base in November. When one or more old ones have been left they have scarcely flowered, and only break into small shoots for next year. Another plant, which is nailed to the house wall and cannot be cut down, scarcely blooms at all, and throws out no base shoots. It remains, as the few flowers it produces look well amid a rampart Brunonis, as both Roses flower exactly at the same time. Aglaia is quite different, and flowers on all wood without pruning. Reigate. J. R. D.

COLOUR IN THE MIXED BORDER.—VII.

(Continued from page 382.)

NOW for the annuals. There is *Anagallis rubra grandiflora*, which is a Pimpernel, and as such an early closer; *Linum grandiflorum rubrum*, which is a charming annual, and will flower for you all the summer through; crimson *Jacobæa*, Hawkweed, *Godetia* Lady Albarle, dwarf *Dianthus chinensis*, and Sutton's crimson *Clarkia*. Love-lies-bleeding (*Amaranthus caudatus*) is so effective that it should be more grown than it is; it makes, too, a very handsome pot plant for winter flowering. There are a few words to be said about this somewhat strange flower which may be of interest. Its name of Love-lies-bleeding has been evolved from the first part of the word *Amaranthus*, which means unfading. The French call the flower *Discipline des Religieuses*, or the Nun's Whipping-rope, which is very different from its romantic English designation.

Love-lies-bleeding must be sown in March on a hot-bed, and planted out in May. A. speciosus is a still finer sort. We can find a few more red annuals, *Coreopsis atrosanguinea* and Malope, Sutton's improved Ruby King *Nasturtium*, a dwarf variety for the fore-

ground, and a deep crimson *Phlox Drummondii*. I am sure there are several other red annuals that might be well added to this list, and I fear, in looking through the whole series of these articles, that there have been one or two omissions. In the article of the 12th inst., when dealing with the pink section, *Phloxes* were not mentioned, and though it is true that most pink *Phloxes* have that lilac tone that I deprecate, still I think Beranger, which is only 3 feet high, might be very useful towards the centre, and so would Ferdinand Cortez, still further forward. And now, before I conclude this series of articles, I should like to add a few words on a very important subject. It is the art of tying and staking, practically and thoroughly, without destroying the artistic and natural effect of the border, and this of all gardening operations is the most difficult to do well. The fault often is that the staking is not done when the plant is young and pliable enough to be trained, and in consequence it has been allowed to grow crooked and lopsided before its training begins.

To remedy this often necessitates the loss of several limbs or branches, a waste that might be avoided by the "tie in time that saves nine." This is particularly the case with *Gaillardias*; they sprawl about in a most aggravating way if they are not trained from the first appearance of their flowering stems. Again, with *Delphiniums* you have no idea what a difference it makes if you put in your sticks in April when the growth is tender, and tie up each stem carefully. By the time the *Delphinium* has grown to its appointed height the sticks will be entirely concealed by the foliage, and a beautiful symmetrical plant bearing flowers on each straight spike will be an ornament to your border. Another advantage of staking *Delphiniums* thus early is the possibility of protecting them from the rigours of spring frosts, for a little hay is easily put inside the stakes, and this will avert a danger to which the young growth is extremely susceptible.

The same treatment holds good with the *Oriental Poppies*. If they are not supported they often break down disastrously with the weight of their great gorgeous blossom when wind or rain assails them during their flowering period. The best stakes to use are well-trimmed Deal sticks painted green; Bamboos, which have the merit of being light and cheap, are not really practical, for owing to their being round they are apt to work loose in a soil that is not very tenacious, and the result may be foreseen. If money is an object, and it generally is, for enthusiastic gardeners are usually extravagant, you can buy your stakes unpainted, and on wet or winter days you can paint them yourself, or make your garden boy do so; they then will cost a third of the others. You will want three different sizes, for many small plants must be kept off the ground, if they are not pegged down. *Salpiglossis*, that handsome annual, requires a thin Hazel wand to support its charming vari-coloured flowers, and for still smaller things pull a Birch broom to pieces and use the twigs. All this is very troublesome, I allow, but good gardening is extremely finicking work, and it is only done properly when the heart is in it. It is no use bunching up your plants and binding them together with a bit of raffia into an inartistic floral bundle. You must tie each spray apart conscientiously on its stick or twig, and it will take you hours, but in the end you will be repaid.

The charming subdued green *Raffiatape* (West's Patent) can now be got from all seedsmen. Its cost is only 1s. 6d. for 250 yards, and it can be used with great advantage in the front of your borders, and for plants in your rooms.

I think some clever head might design some simple plan for staking Sweet Peas in clumps.

I will now bring this series of articles to a conclusion. I feel I have made many omissions, but it is a subject full of difficulties and complications. The following words from the month of a great professional grower of herbaceous plants will endorse this: "I have found colour sections rather difficult to manage owing to lack of some colours at certain times, and an over-abundance of others at the same period of flowering. I like the carpeting idea amongst the taller plants, and if care is used in selection a greater continuance of flowering can be obtained, but then again colour blocks are difficult to adjust."

AUGUSTA DE LACY LACY.

A GENERAL CALENDAR.

HALF-HARDY BULBS, as Montbretias and Ixias, should be heavily mulched with leaves, and a little Bracken sprinkled over the leaves to prevent their being blown about with the first high wind.

CHINA ROSES.—The pink monthly Rose is the one best known, never failing to give us the earliest and latest bunch of Rose buds; and, besides this, there are many other varieties of vivid colouring—crimson, carmine, and rose, and some with a blue metallic lustre in their leaves, which is lovely in itself. These Roses are not only almost always in bloom, but they possess a power of endurance which does not belong to the hybrid varieties. We have now a fine old plant known to have been planted half a century ago from which I am gathering handfuls of buds. They do not require such gross feeding as other Roses, and thus are more useful for permanent beds; among them spring bulbs can be planted with success.

TRANSPLANTING TREES.—These severe weather experienced the latter part of last month greatly retarded this important work, and the soil will not now be in such good condition as it was before the heavy fall of snow, hence great care must be exercised if success is to be secured. Filling in the soil at transplanting is a very important matter. Spread the roots out on the prepared bed, which should not be hard and impervious subsoil, but a bed of prepared compost, into which the roots may penetrate and find nourishment. In filling in the soil avoid the absurd, although very general practice, of moving the tree backwards and forwards to get the soil down among the roots. Treading the soil about the roots of trees at transplanting is a dangerous operation. The soil should be carefully worked in about the roots by the hand or with a blunt stick, for the pressure of the foot, unless carefully applied, is apt to break off the principal roots unobserved.

PROTECTING EVERGREENS FROM WIND.—Of all trees and shrubs requiring protection from wind, none need it more than evergreens recently planted; they are liable to be blown about, and when this is not guarded against the young roots are prevented from taking hold of the soil, and the mass of roots and soil becomes separated from the surrounding earth. Interstices are formed into which rain first and frost afterwards enter, both equally injurious to the young and tender fibres, while in spring the parching winds penetrate.

PROTECTION OF CELERY.—I find the best plan in severe weather, when there is no covering of snow, is to place some dry litter or Bracken Fern along the sides of the rows, and then shake a little

more loosely on the top. Avoid a heavy covering, it only becomes a wet and sodden mass, and the Celery suffers accordingly. Damp is its worst enemy. Whatever form of protection is used, it must be arranged that light and air can have free access.

Norwich.

T. B. FIELD.

CORRESPONDENCE.

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

ORIGIN OF THE NANKEEN LILY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Knowing the interest that is attached to the origin of this Lily induces me to send a short account of some experiments carried out here many years since with the special object of deciding this point. It naturally occurred to me that if this pretty Lily is really a hybrid from *L. candidum* and *L. chalcedonicum*, it might be possible to raise it afresh by cross-fertilising these two forms. Accordingly, in August, 1880, *L.*

as in the scarlet Turk's-cap Lily. This is a very distinct and handsome Lily. Still later in flowering were three or four of the seedlings, which, both in growth and habit, were like *L. chalcedonicum*; but the flowers were much paler, and more of a brick-dust colour, altogether lacking the brilliant sealing-wax vermilion of the parent.

These seedlings are in every way inferior to *L. chalcedonicum*, and have nothing to recommend them beyond the history attached to their origin. I may add that every year since 1895 these Lilies have flowered regularly, and kept to the same time in sequence of flowering. The variety A, which resembles *L. testaceum*, is always the first, then follows B, the apricot-coloured one, and lastly C, the brick-dust section, opening their flowers a few days before examples of *L. chalcedonicum*, in other parts of the garden, are out.

There are now good clumps of each of these three forms, and should any of your readers be in this neighbourhood next August they are welcome to see in the garden the result of this experiment, which has left no doubt in my mind that the ordinary *L. testaceum* is a hybrid Lily which has arisen from crossing the old Madonna Lily with the pollen of *L. chalcedonicum*, and was probably



A GROUP OF LILIUM TESTACEUM.

candidum was fertilised with the pollen of *L. chalcedonicum*, and also *L. chalcedonicum* with pollen from *L. candidum*; but alas! no seed resulted. The following year was wet and unfavourable, but in 1882 I was fortunate in getting seed from one pod of *L. chalcedonicum*, which had been fertilised with pollen from *L. candidum*. The seed thus obtained was sown in a shallow pan and left alone for two years. In October, 1884, the seed pan was turned out, and the small bulbs, some nearly as large as a Hazel Nut, were planted out in a dwarf Rose bed and left to take care of themselves. They grew slowly, and I began to wonder whether they would ever flower. At last, however, my patience was rewarded, and on August 7, 1895, the first flower opened. It proved in point of colour an exact counterpart of the ordinary *L. testaceum*, but the petals were not quite so long or twisted; in fact, they curled back more like the ordinary form of Turk's-cap Lily. A week later another of the seedlings flowered; this proved quite different in colour, a warm apricot tint, without any spots, having the petals not so tightly recurved

produced in some districts where the beautiful white Lily is sufficiently happy to form seed, which, as far as my experience goes, is never the case in this neighbourhood.

Salisbury.

H. P. BLACKMORE.

SHRUBS OR HERBACEOUS PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The question whether *Phygelius capensis* is a shrub or a herbaceous plant (page 369) well illustrates the difficulties that beset us when we endeavour to tie down Nature to any hard and fast line. Though referred to in the "Dictionary of Gardening" as a shrub, on the other hand it is placed in the "Kew Hand List of Herbaceous Plants," and not among the shrubs, thus proving that authorities are by no means agreed on the point. A greater puzzle than this is to be found in *Coriaria terminalis*, recently given an award of merit by the Royal Horticultural Society. This is included both in the "Hand List of Shrubs" and of herbaceous plants, so that in this instance it is

certainly a case of pleasing one's self. That beautiful autumn-flowering subject *Lespedeza Sieboldi*, better known as *Desmodium penduliflorum*, which was a short time since alluded to in *THE GARDEN*, dies down annually so near to the ground level that exception might be taken to classing it with the shrubs. Many tropical plants, again, such as some of the *Eranthemums*, *Aphelandras*, *Begonias*, and numerous others do not die down, hence they cannot be considered herbaceous, while, on the other hand, they are not of a woody nature. The expressive title of sub-shrub is sometimes applied to such as these. T.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. Molyneux's note on page 369 as to whether *Phygelius capensis* should be shown in classes for hardy herbaceous plants reveals one of the many perplexities exhibitors endure at shows. Personally I should agree with the judges and admit the exhibit. Many herbaceous plants become woody with age and flower from old wood quite freely. *Phlomis* and the Japanese *Dracocephalum* are instances that occur to mind at the moment. One can be too fastidious in such matters; plants that make permanent woody stems in mild countries may die to the ground level in colder districts, and yearly records also vary with individual plants. One of the safest guides I know that would help exhibitors is the "Kew Hand List of Herbaceous Plants." Its price is small, and with a copy of this handy the exhibitor can soon set matters right. If that fails, where is the higher court? Not in one individual, surely! I have witnessed many heated discussions as to what can be defined by "perennial." The meaning of the word is, of course, obvious; yet many societies (and, I believe, the premier one) cite, in their schedules, *Pentstemons* as typical instances of biennials, and therefore must not be shown as perennials—a ruling hopelessly inconsistent with the fact that more than half the *Pentstemons* known to cultivation are perennial. G. B. M.

POTATOES TO EAT AND THE NATIONAL POTATO SOCIETY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having read the correspondence in *THE GARDEN* on the above subject, I notice that the Rev. G. H. Engleheart complains that "those who reported the National Potato show mentioned so little about the cooked Potato class," and, after condemning such varieties as Sir John Llewelyn and Up-to-Date as being only fit for not very discriminating cattle, your correspondent goes on to say: "Think of judging our fruits and vegetables, as we habitually do, by the eye and not by the mouth." Now surely the National Potato show was held—as I take it all horticultural shows are held—for the purpose of showing the cultural skill of the exhibitor; and in what other way can this be done than by exhibiting them as at the recent show. Surely Mr. Engleheart does not want to turn our horticultural shows into cookery exhibitions. Perhaps he may be surprised to learn that if Potatoes were awarded prizes only after a cooking test it would be quite as misleading to the public as the present system, because soil and situation have much to do with the quality. A variety that cooks well from one soil may be quite uneatable from another. Even in fields and gardens adjoining they are often quite different. For instance, in this district Potatoes planted in March and April were checked by the drought in June and the early part of July. When rain came they made a second growth, which, of course, spoilt the quality, whereas those planted at the end of June made one growth, and are consequently of much better flavour. A crop of Kerr's Cigarette I recently lifted that were planted after midsummer fully confirms this. I do not by any means suggest that the planting of Potatoes should be deferred until midsummer. I mention this to show that many things may occur during the growth of Potatoes to alter their quality. I quite agree with Mr. Engleheart that the Ashleaf for flavour is unbeatable, as are many yellow-fleshed varieties,

but the public will not have them after August, so it is perhaps, as Mr. Engleheart says, the grower for market that one has to consider. There are many of the whiter-fleshed varieties that are worthy to rank as good-flavoured Potatoes, such as Kerr's Lord Dundonald, Kerr's Cigarette, The Factor, and the Up-to-Date I think Mr. Engleheart would say were good if I sent him some. (I enclose a few, Mr. Editor, for you to try.)

With regard to judging Potatoes at the National Potato show, I should certainly say size should be a last consideration, and that the awards should be made in favour of clean, healthy, shapely tubers of uniform size. We may safely leave the matter of quality when cooked to the public; the bad ones will soon die a natural death, and the good ones will be in demand whether boomed or not.

J. H. RIDGEWELL.

The Gardens, near Histon, Cambs.

[We thank our correspondent for his interesting letter. The Potatoes sent were of excellent flavour, but this is so much a matter of where they have been grown that really no hard and fast rule can be drawn. As Mr. Ridgewell says, it is a matter largely of soil, and this we have proved in our garden this year, but the great point insisted upon by Mr. Engleheart is that size and shape are



CARNATION WHITE STAR (REDUCED).

placed by the judges at horticultural shows before flavour or "quality." This should not be. We have the greatest sympathy with Mr. Engleheart's efforts to educate the public to the proper qualities of the produce which it consumes. Flavour—which means, of course, wholesomeness—must come before mere bulk.—Ed.]

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With respect to the discussion in *THE GARDEN* regarding the eating qualities of Potatoes I am not quite clear as to whether Mr. G. H. Engleheart wishes to condemn all the new varieties as being of inferior flavour. If such is the case, then I can only conclude that either palates must differ or else Potatoes vary considerably in flavour when grown on different soils. The other day I had the privilege of tasting a boiled tuber of Northern Star, grown in a little village on the Cotswold Hills, and I wish for nothing better. I also know that Discovery is a good eating Potato, as also are The Factor, The Crofter, and Cigarette, and these are all new. Like your correspondent, I know nothing of the flavour of Eldorado, which is not surprising, as it is hardly to be expected that a man who is

merely human would boil a tuber that he could readily dispose of for a couple of guineas or more. On the whole, however, I do not think that there is any marked deterioration in the quality of Potatoes with the introduction of modern varieties. G. H. H.

THE GARDENERS' ORPHAN FUND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In common doubtless with many other subscribers an appeal has reached me from the Rev. J. Sutherland Wroxtton, on behalf of the widow of the late Mr. John Hogan, late head gardener at Wroxtton Abbey, who died on October 20 last after a brief illness, leaving a widow and six young children. This is indeed a sad case, and, although I have never favoured the election of two children from the same family at once, yet I have no knowledge of a case so sad as this one, and it would be indeed hard to withhold from these poor fatherless little ones the full 10s. per week which the election of two of them on to the Orphan Fund would give. But may I not use this most distressing case as a lever with which to appeal to not less than 1,000 more fortunate gardeners than the late Mr. Hogan, and who have not before subscribed, to send to the secretary at least 5s., and thus make these children's election sure.

A. DEAN.

CARNATION WHITE STAR.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I can recommend this as a good Carnation for the town garden, that is if the flowers are wanted only for cutting or to make a display in the garden. They are not large, but they are very attractive, are freely produced, and last a long time. Of course, a white Carnation is sooner disfigured by the weather than a coloured one, but White Star seems to be particularly sturdy and well able to take care of itself. *Beasley*. G. H. DOVER.

STAGING LARGE FLOWERS OF CHRYSANTHEMUMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With every desire to see large blooms of Japanese Chrysanthemums exhibited at shows in the most effective way, I could not admire the method I saw recently at Sutton, Surrey, where the flowers in several classes have to be set up in drain-pipes some 20 inches long. The base or flange ends of these pipes are filled with cement and painted dull green outside. The mouths are some 3 inches in diameter, and when erect the stems hold water. In these six blooms are placed in each, the flowers being on fairly long stems. Because they are tall when erect these pipes have to be stood on the floor, and when some two or three dozen are in double or treble rows, no foliage being used to drape the naked pipes, the effect is far from pleasing. Certainly to produce anything like good effect the back row needs to be raised and the front row hidden with Ferns. If there were room the breaking up of the various pipe classes by dwarf foliage plants or Ferns would be a great improvement. That the method of exhibiting the flowers is not worse than that of staging blooms in 12-inch to 14-inch ware vases that have no draping foliage about them is certain, and it is difficult to understand the want of taste shown when naked ware or even glass vases are permitted to be much more in evidence than the flowers. Two years ago it was agreed to dispense with the ordinary open class for twelve Japanese blooms on boards and substitute one for twelve blooms on long stems, shown in two vases, at Kingston. But circumstances compelled the supply of large, broad-mouthed metal vases, very light, painted green, and not unhandsome, into which the whole dozen blooms were placed, with any drooping or decorative foliage added. The result was the production of some exceedingly noble objects. The class, repeated this year, has been even bettered, for the flowers were of great size, superb quality, and most effectively arranged. Some 9-inch or 12-inch vases as these thus filled and

dressed form some of the finest objects to be seen at shows. Some of the competitors said: "These flowers are to be set up at home in a large vase for the hall decoration; they are so greatly admired." That seems a good reason why huge Japanese blooms should be set up at shows in methods that are the most highly favoured in the household. When set up in baskets the flowers, having little or no water, soon decay. But fine blooms set up in vases having ample stem-room and water area last in a cool room for fully a fortnight quite fresh. It is hardly possible to provide in cut flowers any nobler or more effective objects. A. D.

BOOKS.

City Development: A Study of Parks, Gardens, and Culture Institutes.*—This fully illustrated and handsome volume has for its main purpose, as is indicated by the sub-title, "A Report to the Carnegie Dunfermline Trust," an exposition of what may be done to a large space of ground that is given by the philanthropist to his native city, and is to be laid out and built upon for the recreation and pleasant instruction of the people of Dunfermline. The plans include pleasure grounds, which embrace a wooded glen and stream of considerable natural beauty, but now defiled by outpourings of sewage and moraines of town rubbish, ancient historical remains, parkland, garden ground, sites for educational buildings of archaeological, historical, and other character, of buildings for museums of fine art, natural history, &c.; in short, of everything that may be thought of whereby a large space may be rendered attractive to persons of ordinary intelligence and wholesome tastes. Many parts of Professor Geddes's scheme appeal specially to children, the men and women of a few years hence, while the whole shows a remarkable grasp of the possibilities of the place and its new conditions, and offers an illuminating example of such like possibilities in the case of other towns.

GARDENING OF THE WEEK.

FLOWER GARDEN.

PROTECTION, &c.

THE sudden change from the soft mildness of the greater part of November to the heavy fall of snow and severe frosts experienced in nearly all parts of the country has proved disastrous to many shrubs and plants. Our climate is so fickle that, as advised in this calendar for the 5th ult., the advent of that month was a reminder to prepare for the winter. Here in North Cornwall we had 6 inches of snow on the ground, and registered 14° and 15° of frost on two different nights, besides exceeding 10° several times. This for November is more severe than has been experienced for many years. At the time of writing it is too soon to form an estimate of the damage done; but even with the customary winter protection many usually hardy shrubs and plants have suffered. As many eminent weather forecasters predict frequent short spells of weather of even greater severity than that we have just passed through, it will perhaps be wise to increase the amount of covering given to many out-of-door subjects, and, much as I am averse to coddling, I would recommend that where possible any valued examples should be lifted, potted, and wintered in frames or a cool house.

NURSERY PLANTS.

During mild spells all home-raised trees and shrubs which are not large enough for planting in permanent positions should be transplanted. It is the neglect of this very necessary operation that often causes newly-planted shrubs to remain at a standstill for the first year after planting. The

ground should be well worked, and as the aim of the cultivator is to produce sturdy growth and plenty of fibrous roots, the dressing given should be of a character to produce this result rather than to induce vigorous growth. All bruised and straggling roots should be removed with a clean upward cut, and the shoots should receive any needful regulating. The larger shrubs which will be used next autumn should be given ample room for development, and with the smaller one year old plants care should be taken to allow plenty of room for the free use of the hoe between the rows. Planting should, of course, be firmly done and the important mulching given. A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

TREE CARNATIONS.

EARLY propagation of these generally is recommended, January and the early part of February being considered the best time. Cuttings at the present time are inserted with a view to their being rooted and ready for potting off singly early in the New Year. It is from these plants that flowers of good quality and in abundance can be gathered in the autumn of the following year. January-propagated plants form a good succession to the above. For propagating in quantity obtain shallow boxes, and after draining them well place over the crocks a layer of rough leaf-soil, and finally a layer of sand 1½ inches to 2 inches in depth. Use a fine roset can with which to water the sand, and after allowing it to drain simply stick the cuttings into the sand and place them in a close temperature of 65° to 70°. Never allow the sand to get dry, keeping the surroundings of the cuttings moist, and they will readily emit roots.

SOLOMON'S SEAL.

When forced early into growth and flower this is most useful when cut. Retarded roots force very well. They can be lifted from the ground, placed in pots or boxes, or they may be laid in the forcing-bed among Coconut fibre. The plant will thrive well in a heat of 70° to 75° with plenty of moisture, but good drainage is essential. Stagnant water about the roots is detrimental.

DICENTRA SPECTABILIS.

This is another very useful plant for forcing early into flower, and its graceful character makes it an excellent decorative plant. Although portions for potting up to force may be split off the permanent roots, they will force the best when obtained from plants that have been well grown. Do not place the roots in a strong heat at the commencement, growth is freer when they are plunged in a gentle bottom-heat, with a low top-heat.

SPIRÆAS FLORIBUNDA, JAPONICA, AND ASTILBOIDES for forcing require similar treatment, the best results, however, being obtained always from annually imported plants. They grow best with abundance of moisture and little soil about their roots.

SPANISH IRIS.

With care these can be had in flower a little earlier than is possible in the open border. It is a mistake to put them in a close, warm temperature at first, which encourages leaf growth only. Remove them from the cold frame to a shelf near the glass, and in this position leave them until their flower-spikes begin to show, after which they may be given more warmth.

J. P. LEADBETTER.

Tranby Croft Gardens, Hull.

FRUIT GARDEN.

EARLIEST PEACHES.

EARLY varieties of Peaches and Nectarines which are forced in pots, such as Hale's Early and Waterloo Peaches, Cardinal and Early Rivers' Nectarines, should be started at once if ripe fruit is to be had by the end of April or beginning of May. When these trees have been forced in previous years the buds start quickly without much artificial heat. A night temperature of 45° to 50°, 55° by day, and a further rise to 60° with sun-heat in bright weather will be

quite high enough until the trees come into flower, when a little more warmth may be given. Give a little top ventilation when the weather is favourable, carefully attend to watering and keep the house moderately moist, always allowing the buds to become dry before evening. Lightly fumigate the house once or twice when quite dry, before the trees come into flower, to ensure their being free from fly when the flowers are "setting."

SUCCESSION PEACHES.

Houses which contain standard varieties of Peaches, such as Royal George and Stirling Castle, Lord Napier and Elruge Nectarines, should be started at the same time as the pot trees, to supply fruits for the end of May and beginning of June. These varieties may always be relied upon when forced with care, and cannot be beaten for quality. Nothing is gained by trying to hasten the trees; success depends on a low night temperature, with plenty of top ventilation on favourable occasions until after the fruit is set. Carefully examine the borders for water, and do not trust to external appearances. If fermenting material is used less syringing is necessary. Turn a portion of the fermenting material at intervals, according to the state of the weather, and lightly damp it with chilled water. As soon as the blooms expand, see that they are quite dry in the middle of the day, when they should be carefully fertilised with a camel hair brush.

LATE PEACH HOUSES.

The pruning and clearing of later houses should be pushed forward and brought to a close as soon as possible. The house should then be freely ventilated, or, better still, the roof lights removed if possible. This not only retards the buds, but assists the trees to retain them, and reduces many insects, brown scale particularly. Tie in the trees, leaving the shoots 5 inches or 6 inches apart, top-dress the borders with fairly strong loam, wood ashes, and lime rubble, with a good sprinkling of bonemeal to old trees. Root-pruning and replanting should now be finished. If the roots have been disturbed or trees replanted in outside borders, the borders should be well covered with Bracken or litter. F. JORDAN.

Impney Gardens, Droitwich.

KITCHEN GARDEN.

THE change in the weather has come suddenly. Many things in the garden have now to be taken up or protected with all speed. See that Potato and other pits in the open are given an extra covering of soil or straw. Celery will also need protection. Place lights on all Endive plants still out of doors and on Parsley. Inspect the covering round Globe Artichokes, making everything secure in case the frost is protracted. Turnips may now be got out of the ground when this can be done. Give coverings to Asparagus beds, especially in cold, wet gardens. Frames containing Lettuce, Cauliflower, &c., may be kept shut except for a short time in the middle of the day, and mats put on before dark. When it is the custom to store ice this work is generally done by the gardeners. The ice-house should be cleaned out ready for filling, also a large heap should be made in a shady spot. See that all appliances are ready for the work—mallets, rafts, hooks, &c.—also supplies of clean straw and saw-dust to be in readiness. Little can be done out of doors while this weather continues, but a thorough inspection of all roots in store should be made; Pea, Bean, and other sticks got in order; sheds cleaned, &c. All vacant plots should have the requisite amount of manure placed on them now. There will then be no delay when the weather is suitable for digging operations.

FORCING.

Further supplies of Seakale and Rhubarb should now be got in. Every succeeding batch will force better. Supplies may now be placed in a bed in the Mushroom house. See that a plentiful supply of roots are lifted before the ground becomes frost-bound. Continue sowing Mustard and Cress weekly. Where hot-beds are in use extra material must be placed round them. A sowing of Beans may be made now if a good light position near to the glass

* "City Development: A Study of Parks, Gardens, and Culture Institutes." By Patrick Geddes. Geddes and Co., Edinburgh and London, 1904.

can be given to them, as the days will be longer before these are in bloom. Those sown in January, however, will do much better. A smaller pot (6 inches in diameter) should be used at this date. Continue to collect and prepare manure for making new beds for Mushrooms if these are in demand throughout the winter months. To ensure a constant supply a bed should be made every month. See that beds in bearing are damped down regularly with water warmed to a temperature of 80°.

FORCING POTATOES.

As soon as the present year is out the forcing of all kinds of early vegetables must begin. Potatoes, Peas, &c., are in good time if put in early in January; little is gained by sowing them now. Potatoes, however, should be started in shallow boxes at this date to have them well sprouted before placing them in pots. There are many varieties recommended for the purpose. Sharpe's Victor is very reliable, perhaps not an extra large cropper, but the quality is good. Sir John Llewelyn is a variety of quite recent introduction, and is a first-class Potato for this purpose. Harbinger is also a good pot sort. Choose medium-sized tubers; place them close together in the boxes in a warm house to start them. They may be damped over twice a day to promote growth. Pots may also be got ready. They should be washed clean—9-inch or 10-inch pots are best, though I have seen good crops in 8-inch. A vinery newly started will be the best place for this crop when potted.

WINTER CUCUMBERS.

To keep the plants vigorous at this season they must not be allowed to bear too many fruits. The safest plan is just to allow as many fruits to swell as are needed and no more. See that the house is damped over, both paths and borders. Frequent

light top-dressings must be applied. The outside of the house should be kept clean. Endeavour to keep the trellis furnished with young growths. Remove decaying foliage and the male blossoms. Where winter Cucumbers are not wanted a sowing should be made for early spring supplies. Sow a few seeds in a 4-inch pot and place them in the propagating frame, where they will soon germinate.

GENERAL REMARKS.

The storm reminds us that it is now time coverings were placed on all tender plants. Rhubarb should receive a good covering. It pays to place manure about the crowns, as the rains wash the substance down to the roots. Place hand frames on Cauliflower plants in the seed bed or shelter them with Spruce branches. Continue to prepare manure, and wheel it on the ground as weather permits. Garden paths should be re-gravelled and drains inspected. On wet days look over root crops that are stored in sheds, cellars, &c.

Hoptoun House Gardens, THOMAS HAY.
South Queensferry, N.B.

CHRYSANTHEMUMS.

THE season of 1904, so far as large blooms are concerned, is now a thing of the past, and, generally speaking, it must be regarded as one of the best on record. It has been my privilege to judge at many exhibitions, and enthusiasm appears to be as keen as ever. The large numbers of new Japanese varieties introduced each year does much to stimulate the love for these, as also do the improved methods of staging and arranging the blooms. My last appointment was Edinburgh, and this show unquestionably ranks as one of the very best. I have never before seen finer Japanese flowers exhibited than on this occasion. They were massive, richly coloured, and fresh. Specimen

plants were largely shown, but I must confess these were not up to that high standard one used to see in years past at many of our leading shows.

The incurved varieties, though not shown so largely as formerly, have in many instances been unusually fine this year, and Mr. Higgs still maintains his reputation as one of the best, if not quite the best, of present day growers. Though the present affords the exhibitor some little relaxation, there is no time to spare, as preparation must be commenced shortly. A good start has much to do with ultimate results, and the old plant "stools" will need careful attention to induce them to produce stout, strong, short-jointed cuttings. The old growths should be cut down and the "stools" placed in a cool, light house, to be thoroughly fumigated, and every encouragement afforded them to grow freely. Any choice or scarce varieties which are slow to break up should be placed in a gentle heat and be freely syringed. After they have commenced to break remove them to a cooler house. New and promising varieties which have been noted, and it is

intended to get, should be ordered in good time, with a request that they be forwarded as early as possible. Cuttings should be obtained.

DECORATIVE VARIETIES,

which have been specially treated for producing a wealth of blossom for the coming festive season, will well repay any attention bestowed on them. I know of nothing more serviceable for producing an effective display in midwinter than pot plants, and for supplying a wealth of cut flowers, which are generally in great demand. The single varieties generally find much favour, and rightly so; and this section has been greatly improved of late. The plants should be arranged thickly in cool, light houses, and thoroughly fumigated to ward off attacks of green and black aphid. Mildew must not be allowed to establish itself, frequent dustings of black sulphur well applied to the under side of the foliage will effectively prevent this from spreading. Manure water should be given every other watering, nothing being better than diluted drainings from the farmyard. E. BECKETT.

Aldenham House Gardens, Elstree.

ORCHIDS.

ORCHIDS AT THE WARREN HOUSE, STANMORE.

NOT the least of the many attractions of Warren House Gardens are the Orchids. Several houses are filled with them, and as the flowering period of each sort comes round there is much to interest and please.

At all seasons of the year there is something in the way of Orchids to be seen, and on the occasion of our last visit in early November a group of *Cattleya labiata* and *C. dowiana aurea* was worth going a long way to see. Of *C. dowiana aurea* there were about fifty plants. The flowers were large and beautifully fresh, the golden yellow sepals and petals contrasting effectively with the rich purple and violet-rose of the labellum. This plant Mr. Ellis gives rather more warmth than most of the other species, both during the growing and the resting periods. The two *Cattleyas*, together with *Odontoglossum grande*, of which there were many handsome specimens, keep the houses quite bright in late autumn. In the culture of these plants success can only be achieved by persistent attention to their requirements. The group illustrated was photographed previous to the last Temple show. They were arranged in two of the Orchid houses here, and were much admired by visitors, and particularly by Mrs. Bisehoffshiem, who is enthusiastic in the culture of Orchids and many other beautiful stove and greenhouse plants. Some large plants at the back of one of the groups represents *Lelio-Cattleya purpurata* var. *Schröderi*, *L.-C. russeliana*, and *L.-C. purpurata* var. *schilleriana* at their best. Some of the pans were almost 2 feet across, containing from twenty to fifty pseudo-bulbs. Of the varieties *bryisiana* and *atropurpurea* there are several fine forms, some of which are occupying pots 10 inches and 12 inches in diameter.

Large numbers of *Cattleya Mossiae* and *C. Mendelii* are also grown, and added materially to the display at the period mentioned, and some of the best forms are to be seen in the illustration. *Odontoglossum citrosimum* comes into flower with the *Cattleyas*, and is shown in pans overhanging the group. Mr. Ellis has abandoned the use of leaf-mould, finding that greater success attends his efforts when using compost of the following character: Good peat fibre, sphagnum moss, and a little *Begonia* leaf-soil. He says growers are finding out that leaf-soil alone is not conducive to the successful culture of *Cattleyas* in the long run. A plant may thrive in it and make sappy growth, after which the flowering period is of shorter duration, and the pseudo-bulbs more likely to shrivel during the resting season. Watering, too, has to be more carefully carried out when leaf-mould is used, more especially where large plants are grown, and the pots cannot be lifted to determine whether water is wanted or not.



GROUP OF ORCHIDS AT THE WARREN, STANMORE.

That Mr. Ellis's system of culture is good cannot be denied, when one sees several houses, each of which is filled with specimens growing luxuriantly and flowering profusely. D. B. C.

WORK FOR THE WEEK.

CYMBIDIUMS.

THESE are often given a higher temperature than is good for them, making it difficult to keep them free from red spider and thrip, and the foliage presents a sickly yellow appearance. I know no better temperature for them than that given to *Odontoglossoms*; but many have no room in that house, so the next coolest should be the one afforded. We grow ours in the cool intermediate house, which is allowed to fall to 55° in the early morning, and rather lower during severe weather. Nothing is more detrimental to the majority of *Cymbidiums* than a dry atmosphere. If they are potted in good loamy soil they will only require water when they become fairly dry during the growing season, although they are moisture-loving plants. I prefer cool and moist surroundings, and watering only when they have become well dry during the winter months. *C. traceyanum*, the freest and

MOST DESIRABLE FOR AUTUMN FLOWERING, is now nearly over, also *C. giganteum* and *C. affine*. The quieter they can be left the better will be the next growth. *C. winnianum*, the beautiful hybrid between *C. giganteum* × *C. eburneum* (?) is a great acquisition to the autumn and early winter flowering sorts, and is worth a place in all collections; it flowers very freely and is a rampant grower. The flower-buds of *C. hookerianum* (syn. *C. grandiflorum*) are well advanced, and it is essential that the plants have all the light possible. This plant is very often disappointing, for when the flower-buds are more than half developed they turn yellow and drop, which, in my opinion, is caused by placing them in too high a temperature and where direct light is in some way obstructed. *C. devonianum* needs much light, and being of dwarf habit it is best suited when placed on a high stand clear of the other plants and at the warmest end of the cool intermediate house. *C. eburneum* should also be given a like position. This is generally the most difficult to grow, and the compost should be allowed to become very dry before watering. Vigorous plants of *C. lowianum* may be made to produce spikes by giving them a severe drying off at this season, even allowing the pseudobulbs to shrivel a little. The flower-spikes are, in most cases, in evidence on this very popular and useful species, yet the compost should be fairly dry before water is given. *C. lowiano-eburneum* and the reverse cross are now showing their flower spikes, and should be given a light position and allowed to become dry previous to watering. *Cymbidiums* have

MUCH TO RECOMMEND THEM, even to those who do not seriously cultivate Orchids. When in flower they last a long time, either on the plant or cut for room decoration. They are of simple culture and require only an ordinary compost in which to grow; they increase freely. The two things to avoid are light soil and a warm dry house. W. P. BOUND.
Galton Park Gardens, Reigate.

THE FRUIT GARDEN.

RASPBERRY PENWILL'S CHAMPION.

THIS Raspberry is a very strong grower and a continuous cropper, fruiting for more than two months. It was exhibited before the Royal Horticultural Society at five consecutive fortnightly meetings, thus probably creating a record for a Raspberry. It received an award of merit at Holland House show on July 12 last. It has also been certificated this year at Shrewsbury Floral Fête and at Exeter and Taunton Deane shows. The fruit is large and bright red, and retains its colour well even

when over ripe. It is of firm texture, and for flavour will compare most favourably with any other variety. It was raised and is being distributed by Mr. G. Penwill, High Street, Totnes.

National Chrysanthemum Society.

An exhibition of Chrysanthemums was held by this society at the Crystal Palace on Wednesday and Thursday last. We shall give a report next week.

Improvements in Glasgow Parks.

In common with other large cities, Glasgow has a number of unemployed for whom it is desired to find work to help them through the winter. The Parks Committee is now finding employment for between 500 and 600 men. The work to be taken in hand is the formation of a pond in the Bellahouston Park. On a former occasion, when much distress prevailed, a pond was formed in Springburn Park, which added much to the attractions of that open space.

Smithfield Cattle Show.—There were numerous exhibits of horticultural interest at the annual show of the Smithfield Club. Among them were extensive displays of roots, Potatoes, Grasses, &c., from Messrs. Sutton and Sons, Reading;



RASPBERRY PENWILL'S CHAMPION.

Webb and Sons, Wordsley; Carter and Co., High Holborn (who have been appointed agents for Messrs. A. Findlay and Co.'s famous Potatoes); Harrison and Sons, Leicester; Richard Smith and Co., Worcester; Dicksons, Chester; and W. Horne, Cliffe, Rochester. Other exhibits were from Messrs. Fidler and Sons, Reading; Garton, Warrington; S. M. Thompson, Edinburgh; Scarlett, Edinburgh; A. Blatchford, Coventry; John K. King, Reading; E. W. King, Coggeshall; A. Findlay and Co., Markinch; W. and J. Brown, Stamford; W. J. Malden, Ham, Surrey; and Ransomes, Sims, and Jefferies, Ipswich.

SOCIETIES.

CORBRIDGE CHRYSANTHEMUM SHOW.

The seventh annual exhibition of the Corbridge and District Gardeners' Chrysanthemum Society was held in the Town Hall and Drill Hall, Corbridge, recently. Messrs. Kent and Brydon of Darlington had a good exhibit of fruit under the care of Mr. Brydon, jun., and Mr. Lamont. The attendance was the largest on record. The flower stall, which was presided over by Mrs. and Miss Dodd, Lander Grange, proved a great success. The arrangements were carried out by the committee, and Mr. J. Stamper discharged the secretarial duties. It is anticipated that the total receipts will

amount to over £90. The judges were Messrs. S. Barron, Beaconsfield Gardens, Cullercoats; J. Shotton, Prudhoe Hall Gardens; E. Keith, Wallington Hall Gardens; and T. Bell, Linwood Gardens, Jesmond Park West. The following is a list of awards:

Cut blooms: Group of plants: Mr. J. Winder, Howden Dene Gardens, first; Mr. G. Hall, Pele Tower Gardens, second. Eighteen Japanese, six varieties: Mr. J. Winder, first; Mr. W. C. Fraser, Dilston Castle Gardens, second. Twelve Japanese, not less than six varieties: Mr. W. C. Fraser, first; Mr. J. Winder, second. Nine Japanese, not less than four varieties: Mr. W. Herdman, first; Mr. W. Anderson, Farnley Grange Gardens, second. Six Japanese, not less than two varieties: Mr. W. Herdman, first; Mr. W. C. Fraser, second. Three yellow Chrysanthemums, one variety: Mr. J. Lee, first; Mr. W. Mark, second. Three white Chrysanthemums, one variety: Mr. J. Lee, first; Mr. W. Mark, second. Three, any other colour, one variety: Mr. W. Mark, first; Mr. W. Herdman, second.

Nine incurved, not less than two varieties: Mr. J. Winder, first; Mr. W. Hay, second. Three incurved, not less than two varieties: Mr. W. Mark, first; Mr. J. Winder, second; Mr. George Hall, third. Two single Chrysanthemums, dis-budded, two varieties: Mr. J. Winder, first; Mr. W. C. Fraser, second.

Collection of hardy fruit: Mr. J. Waugh, first; Mr. W. Herdman, second.

Table decorations for ladies: Miss Toward, first; Miss Webb, Beaconsfield, second. Table decorations (open): Mr. Moverley, Howden Dene, first; Mr. James Hall, second.

Mr. W. C. Fraser won the silver medal for the best three blooms in the show, viz., F. S. Vallis; Mr. J. Waugh silver medal for the best collection of vegetables; National Chrysanthemum Society's certificate of merit awarded to Mr. J. Winder for best group of plants, and National Chrysanthemum Society's medal for the best vase of incurved; and to Mr. J. Lee for the best bush plant, also silver medal for same. The society awarded a certificate of merit to Mr. Harry Lloyd, gardener to Dr. Stewart of Hexham.

KIRKPATRICK-DURHAM HORTICULTURAL SOCIETY.

The annual meeting was held in the Oddfellows' Hall, Kirkpatrick-Durham, N.E., on the 21st ult. The report of the treasurer, Mr. J. M'Cargo, was of a very satisfactory character, and, on his proposal, it was agreed to place two-thirds of the amount to a reserve fund, to be used only in case of need. The appointment of office-bearers was then proceeded with. Mr. J. M'Cartney, the president, did not desire re-election, but ultimately consented to act until a successor was appointed. The secretary, Mr. D. C. Johnston, also desired to be relieved of his duties, but agreed to act in the meantime. Mr. J. Peacock was re-appointed vice-president, and Mr. James M'Cargo treasurer, and the committee were re-elected with a few exceptions.

CARDIFF GARDENERS' ASSOCIATION.

The Cardiff gardeners paid their annual visit to the Cardiff Central Free Library on Tuesday, the 29th ult., when Mr. F. E. Treseder, F.R.H.S., occupied the chair. Mr. John Ballinger, the chief librarian, received the members in his private library, where he had already placed a large collection of books relating to horticulture on the tables, and, addressing the meeting, he said that quite recently he had succeeded in securing the "Pinetum Britannicum" (three volumes, 1884), besides many others. After the members had spent a couple of hours in looking over many of the volumes, the chairman moved that the best thanks of the meeting be accorded Mr. Ballinger for the great interest he had taken on behalf of the gardeners of the district. He had been instrumental in bringing together a valuable collection of books for the aid of all those interested in horticulture. Mr. Malpass, in seconding, urged upon the young members to grasp the opportunities afforded them at the present day. The chief librarian, thanking the members, said that he was at all times ready to consider any suggestions towards adding any new books. JOHN JULIAN.

EDINBURGH SEED TRADE ASSISTANTS' ANNUAL DINNER.

On the evening of the 2nd inst. the tenth annual dinner of the Edinburgh Seed Trade Assistants was held in Ferguson and Forrester's, Prince's Street, Edinburgh, when Mr. P. M. Greig presided over an attendance of about 100. In the course of the evening the toast of "The Seed Trade Assistants" was proposed by Mr. David Bell, Leith, who referred in eulogistic terms to the seed trade assistants of the city and to their interest in their important business. He spoke with approval of the excursions to gardens, and suggested a series of winter lectures upon subjects connected with their profession. Mr. Bell said that Scotland was the training ground for the seed trade of the kingdom, and referred to the important position in the trade taken by Edinburgh. A suitable reply was made by Mr. J. H. Young. Mr. M. Todd, of Messrs. Todd and Co., Shandwick Place, proposed "The Seed and Nursery Trade," coupled with the name of Mr. Robert Laird, of Messrs. R. B. Laird and Sons, Limited. In the course of a capital speech he spoke of the position occupied by the city in the trade, and alluded to the high positions held by men who had received their training in Edinburgh. He referred to the work done by Mr. R. Laird in connexion with the Scottish Horticultural Association, which he had stamped as one of the most successful of its kind in the world. Mr. Laird made a suitable reply, in which he remarked that he thought the seed assistants of the present day had not the same opportunities as those of former times, who had a chance of learning other departments as well. Other toasts and a capital musical programme followed, and a most enjoyable evening was spent.

ROYAL HORTICULTURAL SOCIETY OF ABERDEEN.

The annual general meeting of this society was held in Aberdeen on the 26th ult. Mr. S. Pope, vice-chairman of the directors, presided over a crowded meeting. The annual

report was of a satisfactory character, although the last show was hardly equal to some of its predecessors. The financial position was considered satisfactory, although there was a deficiency on the ordinary income and expenditure of £13 5s. 2d. This was, however, a smaller deficiency than for some time, and, in addition to £320 of bequests at the credit of the society, there is also a sum of £72 2s. 10d. to be carried to next year's accounts. In the report mention was also made of the children's competition, which was excellent, and of the indebtedness of the society to the Town Council for the use of the Duchess Park for the show. Some discussion took place upon a motion and amendment proposing alterations in the rules regarding the management of the society. The following, moved by Mr. J. M. Simpson, was ultimately carried: "That the affairs of the society be under the management of the acting directors, consisting of the chairman, vice-chairman, secretary and treasurer, and twenty members elected irrespective of any class (seven to form a quorum). The society to consist of four divisions, namely: (1) Professional and market gardeners, (2) nurserymen and florists, (3) amateurs, and (4) working class." Six gentlemen were proposed for the office of secretary and treasurer, but ultimately Mr. J. B. Bennet was re-elected by a large majority over all the candidates.

REIGATE, REDHILL, AND DISTRICT GARDENERS' ASSOCIATION.

This society held the fortnightly meeting on the 25th ult., Mr. W. P. Bound in the chair. Mr. Townsend of The Gardens, Sandhurst Lodge, gave a lantern lecture on "A Berkshire Water Garden in Summer." A fine collection of Nymphæas, all of which had been photographed by Mr. Townsend, were shown upon the sheet and proved of much interest to the members. Much valuable information was gained with regard to the formation of a water garden, also the position and soil most suited to this purpose. The lecturer clearly proved the value of this form of gardening. Many plants which were suitable for water gardens were mentioned, and instructions given for their culture. Some exceedingly fine specimens of *Hydrangea hortensis* and *H. paniculata* were shown upon the sheet, showing how readily these plants lend themselves to outdoor culture and what a grand display they make. A vote of thanks to the lecturer closed the meeting. F. C. L.

READING GARDENERS' ASSOCIATION.

At the last meeting of the above association Mr. C. Foster, Horticultural Instructor, Reading College Gardens, read a practical paper on "Cropping and Intercropping a Vegetable Garden." Peas were first dealt with as forming one of the chief crops of the garden, and the suggestions thrown out as to cropping and intercropping in connexion with this popular vegetable will give an idea of the comprehensiveness of the paper. Between the rows of early Peas, Spinach, Radishes, and early Milan Turnips should be taken, and with the second earlies a short-topped early Potato or early Cauliflower, such as Erfurt or Magnum Bonum should be sown. After the early Peas are removed, Endive, Lettuce, and Spinach should be sown for autumn use. The second early Peas being cleared off at the beginning of August will allow room for winter Spinach and late Turnips. In conclusion, Mr. Foster mentioned that in cropping and intercropping a garden, the thing to aim at is the production of the largest possible amount in a given space and in a given time, and to reduce the chances of failure each successive crop should be in character as far as possible unlike its predecessor. A good discussion followed, sustained by the president (Mr. Leonard Sutton), Messrs. Powell, Wilson, Hinton, Alexander, Neve, Tunbridge, and Townsend. A splendid collection of vegetables from the college gardens was staged, and was greatly admired, consisting of Potatoes, Tomatoes, Broccoli, Carrots, Turnips, Brussels Sprouts, Endive, Chicory, &c. A hearty vote of thanks was accorded to Mr. Foster for his excellent paper, and also for sending the exhibit of vegetables.

ROYAL HORTICULTURAL SOCIETY OF PERTSHIRE.

The annual meeting of the Royal Horticultural Society of Perthshire was held in Perth on the 26th ult., Mr. A. Coates in the chair. On account of the weather and the lack of public support at the last show the report of the secretary and treasurer was of an unsatisfactory character, there having been a loss of £87 4s. 3d. on the show. In response to a special appeal the sum of £44 19s. had been subscribed by members and other friends, and a loan of £50 had been obtained on a security held by the society. Including this sum of £50 the total receipts amounted to £253 10s. 2d. The expenditure amounted to £234 18s. 9d. The office-bearers for the ensuing year were appointed as follows: President, Mr. A. Coates of Pitcullen; vice-presidents, Lord Provost Love and Mr. R. D. Pullar, Brahan; practical vice-president, Mr. E. A. Stenning, The Gardens, Brahan; secretary and treasurer, Mr. A. Brown, of Messrs. Alexander and Brown, seedsman, Perth. The question of holding next year's show in a park at Pitcullen was remitted to the committee to consider, and it was also resolved to make an effort to secure some special cups for the show, next year being the centenary of the establishment of the society.

ANSWERS TO CORRESPONDENTS.

Names of fruits.—*J. H. C.*—1, Alfriston, very fine; 2, Newton Wonder; 3, Alfriston; 4, Court Pendu Plat; 5, Boston Russet; 6, Tower of Glamis.

Grape for November (THORN).—The best Grape to ripen in November is Black Alicante. This is a free grower, but the quality does not compare with the Muscat.

At the same time if your house is good as regards freedom from drip and well situated you could have excellent Muscat until Christmas. Another good Grape is Alwicket Seedling, which is also late, but a bad setter in some cases, and not so reliable. The best late Grape, but a thick-skinned one, which the others are not, is Lady Downe's.

Peach for September and October (THORN). The best Peach for open wall in September and October is Bellegarde. This with you would ripen in the middle of September. A little later variety would be Late Devonian or Sea Eagle, the last named being the latest of the two. A still later variety would be Walburton Admirable. We advise Bellegarde or Sea Eagle.

Ramondias (MISS ANDERSON).—It is the more difficult, by reason of the position in which the plants are, to treat them successfully. We may, however, mention, in case it is possible of application, that any rough substance—coal ashes, sawdust, fine charcoal, &c.—is much disliked and avoided by the pests. We would, however, not cling too strongly to the one position, for the plants are quite at home on the level ground, and can be more readily treated generally in such places. We still strongly urge the value of foot, and though the bulk may be washed away, much of the bitterness remains, and after a few fruitless attempts the slugs will generally find a feeding ground elsewhere.

Manuring Potato ground (J. G.).—We are much interested to learn from you that Up-to-Date Potato, grown on dug-in pasture, the soil sandy, gave you most excellent quality as compared with the quality of the same variety grown in the garden. It does but furnish one more proof that soils, or rather their constituents, for it is the same thing, have great influence in the production of quality or otherwise in Potatoes. So many people who find Potato quality in any variety to be bad from their inferior soil rush hastily to condemn the variety; yet on diverse soil it may be of superior quality. What would be of great service to Potato growers would be an analysis of the diverse constituents in your old pasture soil and garden soil, as in such case we might then know much better than we do now exactly what are the soil constituents essential to the production of good quality in Potatoes. It is just possible that the dug-in pasture, when in a state of decay, did furnish some good elements to the Potato plants that were lacking in the garden soil; but, of course, with imperfect knowledge that is but conjecture. Certainly we have found good garden soil, which is deep but on a chalk foundation, to produce fine quality in Up-to-Date, although manured chiefly with tree leaves. As you wish to employ what are known as chemical or artificial manures for your Potato ground next year we advise that you purchase enough of basic slag to dress the ground at the rate of 6lb. per rod. This costs about 4s. per cwt. Have that well forked in at once. In March apply, at the rate of 4lb. per rod, fish guano, a capital manure costing 7s. per cwt., and have it at once deeply dug in. You could plant either with the aid of the dibber or by throwing out furrows with a spade a week or two later. If the seed tubers be well sprouted in shallow boxes first it will be early enough to plant in the middle of April.

Celery diseased (A. D.).—The Celery seat is badly diseased, and you note that you have followed the advice given in a vegetable book, but in the work referred to at page 41 we find the following excellent advice is given. It is as follows: "There should be no earthing up until the plants have made a full growth, for the earthing up pretty well stops the growth," that is, it is only a finishing process to bring the crop to perfection. The specimens sent were washed and trimmed. We wish they had been otherwise, as probably we should have been able to note what kind of soil, if heavy or light. There are no details to help us in discovering the cause of failure. We do not doubt for a moment but that good culture has been given; in fact, we think you may have been too good to the plants. Is the land well drained, and do you use much manure or feed too freely during growth? These are only small details, but one may go a long way to explain why such excellent Celery has decayed so in the centre. You say that last season, which was wet, the same difficulty occurred, but this year was more favourable, and your plants would not suffer from the rainfall, but from other causes, which we will describe. In the absence of details we can only come to this conclusion, that the plants have been mounded up too early, and the plant, being unable to develop its growth at the centre, rotted. This is a common failing, and one that occurs more often than one might suppose. When the plants have a large body of soil pressed hard round the tender growths, before the latter are fully grown they soon go wrong. Another thing which assists and often begins the decay is the use of strong manures, such as in chemicals or liquids. These when used to excess cause decay, also if the soil is very heavy it is much closer to the plant. Much depends upon how the earthing up is done. In your case we would in the future advise mounding up as late as possible. It is an easy matter to place a little soil occasionally to the plants, but not to finally finish earthing up until growth is complete. If Celery is wanted early only do what you require, but not that for use at this season or later. The longer Celery is left before earthing up the harder the growth, and less likely is it to go wrong afterwards.

Bright-coloured pillar Roses (A. R. A.).—One of the greatest charms of the modern Rose garden is in the free use of pillars and arches whereon to display the true beauty of the vigorous growing Roses that are now so abundant. Perhaps of all forms the pillar is the most useful. The list of some twenty-five Roses which you already had embraces many well known and valued varieties. Your present collection comprises mainly summer-flowering Roses, and for such time as they remain in bloom nothing can surpass them in beauty. Of these summer kinds we miss one well-known variety, viz., *Félicité Perpétue*, perhaps one of the loveliest of the white cluster Roses. What a height such Roses will attain! We have seen some grand specimens of this old Rose which have clambered to the top of some 20-foot-high Larch poles. You could not do better than add the varieties you propose, namely, *Blush Rambler*, with its lovely clusters of delicate pink blossoms, each flower

with two rows of petals, and extremely lasting. *Electra* and *The Garland* are also grand. *Pink Rover*, too, is one of the best pink varieties for autumn, and its blossoms are as fragrant as they are beautiful, each bud as handsome as a Tea-scented variety. We should not advise *Pink Roamer* unless you have an old tree you wish to cover quickly. You ask for a few other names of bright colours suitable for pillars. Good scarlet autumn-flowering Roses are *François Crousse*, *Griess an Teplitz*, *Gloire des Rosomanes*, *Maharajah*, *Ards Pillar*, and *Bardou Job*. Other useful bright-coloured aorta that bloom in autumn are *Waltham Climber No. 1*, *M. Désir*, *Reine Olga de Wurtemberg*, and *Climbing Craniois Supérieure*. A very lovely deep pink pillar Rose is *Climbing Belle Siebrecht*. This grand variety should be in every garden. Paler pinks of merit are *Climbing Captain Christy* and its more magnificent rival, *Mme. Edmée Coctean*. *Climbing Caroline Testout*, and *Conrad F. Meyer*. Two grand whites are *Frau Karl Druschki* and *Mme. Alfred Carrière*, the first named of rigid growth and the last named of most luxuriant growth, well adapted for a tall pillar or arch. Of summer flowerers *Philadelphia Rambler* bids fair to supplant the old *Crimson Rambler*. Its individual blossoms are more perfectly formed and of a more intense colour. *Rigosa Mrs. Anthony Waterer* makes an excellent moderately high pillar Rose. *Wichuraiana rubra* should be largely grown, as it is most valuable for cutting for table decoration. It produces blossoms in large clusters, and, being single and of a bright colour, they are most attractive. *Ruby Queen* is also good. The old Hybrid *Chinas Chenedole* and *Fingens* are not yet surpassed; the former is a bold, handsome crimson flower, and the latter a neat little Rose of a very bright shade. *Helène*, *Waltham Rambler*, and *Tea Rambler* are splendid pillar Roses, and the same may be said of *Flora* and *Bennett's Seedling*.

Forcing Lilac (ANXIOUS).—Forced white Lilac has been much in demand of late years. The forcing of this in the way that the French market gardeners treat it, is not fully understood by everyone engaged in the production of flowers in winter in this country. It may be taken as a rule that if plants are hurried into bloom in a very high temperature it causes the flowers to come thin in texture. This is particularly the case when the plants are hardy, as the lower the temperature they are naturally able to bear the more they are weakened by being subjected to strong heat. To this Lilac is an exception, as the plants will stand a higher temperature than most things while being brought into flower without it having any effect on the flowers in the way named. Even when the plants are forced in the dark it has little influence on them as far as affecting their durability when exposed to a dry atmosphere. A temperature of from 89° to 90° is not too much to force Lilac in. When white varieties are used there is no need to darken the plants with the object of having the flowers white, but the darker coloured sorts will not come so pure in colour if exposed to too much light.

Japanese Iris from seed (CROMARTIE).—Although this Iris may be reported direct from Japan in many beautiful varieties, the raising of new sorts from seed may be made profitable as well as interesting. When left to their natural development they produce but little seed, and the varieties obtained from this are ordinarily no better, and usually not so good, as the original forms; but when carefully hand-fertilised nearly every flower so treated will produce its pod of seed and a large percentage of the flowers will be better and most of them as good as those of the parents. By actual counting it has been found that of seedlings from hand-fertilised flowers 40 per cent. were varieties worth preserving, while of plants from seed produced naturally but 6 per cent. were good. It is desirable to have some varieties to flower earlier in the season, and this may be accomplished by a careful selection of seed from those that first come into bloom.

Wintering Tigridias (AMATEUR).—Though the Tigridias will, in many places, pass through the winter in the open ground without any care or attention, yet in others the bulbs are liable to decay, especially if the season is wet, and where such is the case it is better to lift them in the autumn when the foliage dies down. They keep best when they are lifted, the old leaves cut off, and the bulbs laid on a shelf in a good dry shed till they are thoroughly ripened. Then store them in boxes of perfectly dry sand, and keep them where they are just secure from frost, when they pass the winter without injury. One point to especially guard against is to see that the sand does not get damp, and another is to keep a sharp look out for mice, as they are very fond of the bulbs.

Timber felling (G. S. GROVES).—The felling of hardwood trees should be done in the winter season, and be finished before the buds begin to expand in the spring, except in the case of those kinds of trees which are to be peeled. The axe is the best tool to use in the earlier stages of a plantation's growth, but after trees get to forty years old the saw should be used. When this work is done by the forester's own men he can generally have the work done to his satisfaction, but when the work is done by the piece by a timber merchant's men, this is not so easily done. Care must be taken to have the trees felled close to the ground, and is more especially necessary where the suckers are desired to grow up as underwood, or to come in for a succeeding crop. In felling trees grown from old stools, we often come across portions of the old stool embedded in the bottom of the tree, and as this is always partly decayed and of bad colour, it spoils the sale of the timber; whereas when a tree is grown from a stool cut close to the ground it may be cut off sound and good. Another important point to be attended to in felling is to do as little damage as possible to the standing trees by the fall of those being felled.

CATALOGUES RECEIVED.

Trees and Shrubs.—Messrs. Clibran, Altrincham.
Seeds of Trees and Shrubs.—Messrs. Vilmorin, Andrieux et Cie, 4, Quai de la Méjésine, Paris.

* * * The Yearly Subscription to THE GARDEN is: Inland, 15s.; Foreign, 17s. 6d.

THE GARDEN

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DECEMBER 17, 1904.

A MEETING OF ROSE GROWERS.

THE annual meeting of the National Rose Society is always a pleasant gathering together of rosarians from all parts of the United Kingdom, and the meeting on Thursday of last week, of which a report is given on another page, was perhaps more enthusiastic than usual. The chair was taken by the president, Mr. C. E. Shea, whose wise remarks and tactful management of the various points which arose showed that the committee had made a right selection as their head for the next two years. There was an element of sadness in the proceedings. During the year the society has lost a great leader in the late Dean of Rochester, and the genial presence of the Rev. Foster-Melliard was much missed, and kindly reference was made to these losses by the president. A full afternoon's business was got through, this including alterations of the rules, consideration of the place for the provincial exhibition, the departure from the Inner Temple Gardens, and financial statement. Before the proceedings began the president presented a testimonial consisting of a cheque for £150 to Mr. Edward Mawley, the honorary secretary for twenty-six years — part of the time in co-operation with the Rev. H. D'ombrain—as a slight token of the esteem in which he is held by all who have worked with him in furthering the interests of the society. No man deserved better such a gift as this. Mr. Mawley, by his devotion to the society and his disinterested labours, has raised it to a proud position in the world of flowers.

The National Rose Society is an increasing influence for good in gardening; it is endeavouring to assist the beginner in every possible way by the publication of booklets in which clearly expressed information is given on "Planting Roses," "Pruning," and other subjects which must be understood before success in the exhibition can be assured. The migration of the society to Regent's Park will be watched with some anxiety. The reason for this departure is the dislike of members of the Inner Temple to the noise occasioned by a show in their restful Thames-side garden. We can understand their objection, and can only hope that the society will not suffer through losing so central and pleasant a position. The authorities of the Royal Botanic Society have, however, met the National Rose Society in the most kindly spirit.

They have promised the use of the beautiful gardens and the gate money for the day. A welcome so hearty and sincere as this will do much to remove the fears that are entertained of a failure through want of public support. The society is flourishing in no uncertain way. Mr. Hayward, the treasurer, had the happy duty of announcing a balance of £318 19s. 11d., of which £100 is to be placed to the reserve fund and £25 given towards the Royal Horticultural Hall in Vincent Square. No less than 379 members have joined during the present year, which brings up the strength of the society to 1,309. There was some discussion as to whether, with the increased prize-money given to the autumn show, the society would be justified in holding a provincial exhibition, but we are pleased that such a step has been taken. Unless the society continues to meet in the provinces, it loses its right to be called "national." There is always a danger when a society has its headquarters in London of localising the work. No greater mistake can be made. A society which calls itself "national" and cramps its energies in a London hall ceases to be regarded by its members in the provinces as a strong and progressive institution. A representative of the Gloucester Society gave the National Rose Society a warm invitation to that city, and this was accepted. A dinner in the evening closed the day's proceedings. Mr. Shea presided, and Mr. Mawley was heartily congratulated on the honour conferred upon him by the council of the Royal Horticultural Society in asking him to accept the Victoria Medal of Honour.

"THE GARDEN."

NUMEROUS letters have reached us from subscribers with reference to the reduction in price of THE GARDEN, and all write in appreciative terms of the proposed change. We should like again to emphasise the fact that THE GARDEN will relinquish none of those subjects which have always been characteristic of its pages. Its good influence in the world of gardening has never been questioned, and those features which have been contributory to this will be maintained and brought even to greater excellence. As examples of the letters we have received we may quote from the following. From Dyke, Bourne, in Lincolnshire, Messrs. Gilbert and Son write: "As a subscriber to THE GARDEN for many years we are glad to see that its price is to be reduced

on January 7 from 3d. to 1d. Above all, it is most gratifying to know that none of its traditions will be sacrificed, but that it will maintain its high standard of usefulness; in fact, we shall look forward with increasing pleasure to those GARDEN features in the new series which have been familiar for so many years. We feel sure its influence for good will widen as time goes by." Amongst private subscribers, Mrs. Davidson writes from Totnes: "I must send you a line to say how heartily I greet the new departure. I was glad, as I am sure were many others, to notice the assurance that the high standard of THE GARDEN will be maintained."

DEVELOPMENT OF THE CHRYSANTHEMUM.

MAGNIFICENT in form and varied in tints as are so many of our more highly developed flowers, it would be difficult to find any fair parallel to the case of the Chrysanthemum. A year or two ago some specimens of the original wild plant were exhibited as grown in Kew Gardens, and these, when contrasted with the finest varieties, gave a very vivid idea of the wonderful capacity for development which may exist in a flower of little promise. The normal flowers were not an inch in diameter, and little better than single Daisies, and it seemed inconceivable that the huge blooms near by, perhaps a foot in diameter, and with heaped-up gorgeously coloured petals to half that depth, could have been evolved from such a commencement.

The wonder is the greater since there is little or no evidence that these results have been obtained by hybridisation, as in the case of the tuberous Begonias; whatever crossing there has been done appears to have been between varieties only, and not distinct species. How the metamorphosis first came about is not clear, as it began in the Far East, long before the flower attained any popularity in the West, such popularity only being excited by the fact that the flowers had already become very attractive and very varied in character, both as regards form and colour. No one, however, could have dreamed at the time of its introduction that the flower would become the *raison d'être* of countless societies all over the world as it has done, nor that it would eventually develop such infinite variety and attain such immense size. Every season sees further varieties brought forward, and many fine flowers fail to receive distinctive awards, despite their beauty, owing to their representing no definite advance on types already introduced. It often, indeed, becomes a difficult matter to imagine how further improvement can arise, so perfect are many examples of each type, but every now and again Nature invents some novel feature as a fresh start, and thus prevents such a standstill as took place with the old-fashioned Dahlia before the Cactus form revolutionised the cult.

Nature, however, is not always successful in meeting horticultural tastes with her novelties, as for instance with the so-called hairy forms which

once promised to be "the rage," but have now fallen into the background. Then she invented the filamentous or thread-like petal, and we had a temporary influx of spidery-looking flowers which also failed to hold their own by comparison with their more robust companions, since they possessed absolutely none of the points which judges demand in these days to constitute an attractive flower. It is, however, unwise to throw too much cold water on these attempts at novelty, for Nature has sometimes a happy knack of redeeming their merely "curio" character by some subsequent additional touch. It is an opinion in many minds that the Cactus Dahlia strain originated in Jnarezii, solely from a fortunately preserved seedling of a type which had it occurred here instead of in Mexico, in a batch of the old-fashioned Dahlias, would have been weeded out as a mere rogue.

Studying the history of the Chrysanthemum and its very humble origin, the question arises, "How many other bumble flowers are there in the world which are only waiting to be taken in hand to afford a similar harvest?" We have in our mind's eye as we write the Japanese Anemone, another composite, and normally of a far more promising character. Already in this we have the beautiful semi-double form Monte Rosa, which seems to our mind to suggest great possibilities, and as an autumnal flower of perfect hardiness would form an invaluable prize could it be developed only to a tithe of the extent of the Chrysanthemum.

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

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.

TREE CARNATION THE QUEEN.

Messrs. H. and J. Elliott, Courtbushes Nurseries, Hurstpierpoint, Sussex, send flowers of this remarkable Carnation for colour, which is a strong, almost metallic, rose. It does not burst, that is the calyx remains intact, and the flower is full and very sweet scented, a true Clove fragrance. The senders write: "The flowers were taken from a small batch of plants from which we have been cutting regularly for the last eight or ten weeks. The plant grows vigorously and blooms freely; the flower well formed, the calyx sound, and the scent quite Clove-like." A variety such as this is most welcome in December.

TWO NEW CHRYSANTHEMUMS.

I am enclosing for your table two Chrysanthemum flowers, the white one a sport from Miss F. Hicks, and the yellow one a sport from General Hutton. They both seem to me desirable varieties, and I should be glad to have your opinion of them.—F. NAPIER CLAVERING, *The Tower, Dovercourt, Essex.*

[As far as we can judge from the blooms sent, the white variety would make a good exhibition flower if you could get the centre to fill up better, while the yellow one does not appear to be so good an exhibition sort as its parent, General Hutton. It would probably be more useful if grown undebudded. If it flowers freely it might then be valuable.—ED.]

TULIPA PRECOX VAR. DAMMANNI.

We have received flowers of this beautiful Tulip from Eltham, Torquay, a welcome contribution to our table at a time when Tulip flowers are not in our thoughts, and the note accompanying them is

interesting: "I greatly admired this flower in France. You will notice the fine character of the foliage. The flowers were taken from a pot, and they are the smallest. It is also coming well in the open. You will agree with me that it is a prettier object in a pot at Christmas time than the old crimson and yellow Van Thol."

SINGLE CHRYSANTHEMUM DOROTHY FORTESCUE.

Mr. Page sends from the Dropmore Gardens, Maidenhead, flowers of this very distinct and beautiful single Chrysanthemum. The flowers are of great size, but without any suggestion of coarseness, and their purity of colour is conspicuous. It is a variety to cut for the house and to grow as a decorative plant. Mr. Page writes that his plants are about 4 feet high and as much in width.

PRECOCIOUS LENOJOJUM ÆSTIVUM.

Last year and also this year I have recorded in the columns of THE GARDEN the early flowering of a form of the Summer Snowflake with me. In 1902 and 1903 it blossomed in January. It has now beaten this record by over a month, for on December 10 its first flowers, two of which I send you, opened. As I remarked on page 156, Vol. LXIII., other plants which I received from Mr. Arnott some years ago are quite normal in their behaviour. These are growing by the side of the precocious batch, which are in flower and full leafage, while the foliage of Mr. Arnott's is only just piercing the ground. I have known *Lenchojum æstivum* to flower at the same time as *L. vernum*, but never before in midwinter, as these extraordinary bulbs of mine have done for the past three seasons.—S. W. FITZHERBERT.

[Welcome flowers of the *Lenchojum*.—ED.]

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 3, 1905.—Royal Horticultural Society's meeting.

January 24.—Royal Horticultural Society's meeting.

Royal Horticultural Society.—The twenty-fifth show of this society held during the current year was opened to the public on Tuesday. In addition to the show of Colonial-grown fruit and of home, colonial, and foreign preserved and bottled fruits and jams, there was a very good display of English-grown fruit, Orchids, shrubs, single Chrysanthemums, and early spring flowers. At the general meeting of the society, held during the afternoon, twenty-six new Fellows were elected. Mr. W. G. Freeman, late scientific assistant to the Imperial Department of Agriculture in the West Indies, and now superintendent of the economic collections at the Imperial Institute, delivered a lecture on the fruits of the West Indies, which was fully illustrated with models and actual specimens of the fruits in question, with diagrams, and with a long series of magnificent water-colour drawings from the Imperial Institute collection, which were shown in the exhibition hall. The lecturer remarked that the exhibits in the West Indian section rendered it unnecessary for him to devote any time to proving what must be to all a self-evident fact, that the West Indies were capable of producing a great variety of fruits of a high order of excellence. The next show of this society will be held on Tuesday, January 3, 1905.

A new yellow Chrysanthemum.—The variety Golden Standard received a first-class certificate when shown by Mr. C. E. Turner, Hale, Liverpool, at the recent National Chrysanthemum Society's show. It is a sport from Bronze Tuxedo. The flowers shown were of a clear bright yellow and of moderate size, that is to say, about 4 inches to 5 inches across. It is a Japanese variety, with petals arranged somewhat flatly. It is said to be especially good as a cut bloom; it may be cut with stems 2½ feet to 3½ feet long, and these are strong and erect. Twenty to thirty good

blooms may be had from one plant. It is said to be robust and a good grower, and the foliage does not droop.—Y. Z.

Swanley Horticultural College.—On the 9th inst. a meeting was held at 24, Park Lane, at the invitation of Lord and Lady Brassey, in support of this college. Sir John Cockburn, who was the chief speaker, said the great demand for lady gardeners, who had been students at Swanley, showed that the college had come to stay. But Swanley suffered from lack of funds, and he was inclined to think that was a sure sign of efficiency. With its colonial branch the college was helping, not only a great national work, but was ministering to the Empire. Other speakers were Mr. C. Buckmaster, Mr. J. C. Medd, Dr. Rawson, the Hon. Mrs. Lyttelton Gell, and Mrs. Pember-Reeves.

Dundee Horticultural Association.—The monthly meeting of the Dundee Horticultural Association was held in the Technical Institute on the evening of the 6th inst. There was a good attendance of the members. The lecture for the evening was on "Our Cone-bearing Trees," with lantern illustrations, and was by Mr. J. B. Carr, 94, Nethergate, Dundee. It was of a very interesting nature, Mr. Carr pointing out the distinctions between conifers and other plants, and discussing the classification and distribution of the genera and species. In addition to the lecture being illustrated by a number of excellent lime-light views, specimens of the cones produced by a number of the conifers treated of in the address were exhibited. Mr. Carr was heartily thanked for his valuable lecture.

Notes on the Potato.—The members of the Kingston Gardeners' Society were favoured with a lecture on "The Potato," on the evening of the 9th inst., by Mr. A. Dean. Mr. E. H. Jenkins, the president, was in the chair, and there was a good attendance. The lecturer dealt with the general character of the Potato, its tenderness and susceptibility to disease; then, referring to methods of production, described the procedure in cross-fertilising varieties to obtain new ones, the securing of seed, and raising of seedlings. Next followed reference to propagation by tubers, time for selecting them for planting, proper size of tubers, storing them in winter, in boxes or on shelves, or in pits or "pies," specially referring to some recent experiments at Leeds (in which lime was used to preserve the tubers), the sprouting of the tubers in light, later planting after the soil had become warmer in spring, &c. Then the effects of change of seed—not only from north to south, but also from stiff soils to light ones—was discussed. Then the interesting subject of the propagation by sprouts was dealt with, special reference being made to Messrs. Sutton and Sons' experiments with such raised plants and the possible effect on Potato constitutions, also on the propagation of the disease from resting spores in tubers. The lecture was illustrated by useful diagrams, various sized tubers, and by some fine samples kindly sent by Mr. James Gibson, Mr. Cooper (Home Park), and others, as well as by a singularly humorous exhibit of Potatoes to represent curious oddities by Mr. J. T. Blencowe. The production of scab was the chief element of the discussion which followed. The members will meet in a social gathering on January 6, 1905, and on the 13th Mr. Jenkins will follow with a lecture on "Hardy Perennials."

Further extension of fruit-growing at Blairgowrie.—Some time ago THE GARDEN noticed several extensions of fruit-growing which were taking place in Scotland. In the Blairgowrie district further extensions of the fruit farms are again in progress. On the estate of Ardblair, the property of Captain Blair-Oliphant, about twenty-five acres on the farm of Hillbarne are to be planted with Raspberries, while on Myreside, on the same estate, there are to be some fifty acres devoted to the same fruit. In the Rattray district a further extension of the industry is being carried out. There has arisen, it appears, a considerable demand for Raspberry jam abroad, and this has assisted in creating a larger market for the fruit. The climate of the Blairgowrie district seems to suit the Raspberry well.

Patagonian Plants.—The *Journal of Botany* for November contains the first part of a detailed description of the plants collected in Patagonia by Mr. Hesketh Prichard, of which a preliminary list was given in his book "Through the Heart of Patagonia." The identification has been undertaken by Dr. Rendle, who prefaces the list of plants with a short account of the region in which the collections were made, and the typical elements which are represented. The new species belong chiefly to characteristic temperate South American genera.

Rose Pauline Labonte.—I cannot understand why in writing of so many beautiful Roses no one has ever made mention of Pauline Labonté. It is especially beautiful in autumn, and I have been able to pick lovely specimens as late as December; it is semi-double, and of a light buff colour bordering on copper, the petals opening freely and being even rolled back, but this irregularly; they are also of a waxy consistency, which renders them very rich in appearance. I would also mention that on the 29th ult. I picked a branch of Cydonia in full flower, which is not common, I think, so late in the year.—L., *Ronte de Blonay, Vevey, Switzerland.*

Lecture on the flora and scenery of the Alps.—At a meeting of the Scottish Natural History Society in Edinburgh, on the 1st inst., a most interesting lecture, entitled "Notes on the Flora and Scenery of the Alps" (illustrated by limelight views), was read by Mr. J. G. Goodchild, one of the vice-presidents, in the absence of the authoress, Miss Marion J. Newbigin. Among other points referred to by Miss Newbigin were the climatic conditions of an alpine district, and their effects upon plant life. Among the points noted in this connexion as affecting the flora were such things as water supply, soil, and other influences. It was pointed out that there were three main zones of alpine vegetation, which could be broadly divided into those of deciduous trees, conifers, and alpine flowers. Miss Newbigin was heartily thanked for her interesting lecture.

Pear Bellissime d'Hiver.—Those who require the best cooking Pears would do well to give this a place. It is in season from November to April, and at a time when other fruits are scarce. Some of the cooking Pears, like the dessert varieties, are not free from grittiness, but this one is quite free from that fault. It has white flesh, finely grained, very sweet, and with a rich aroma. Our trees on the Quince stock never fail to crop even in bad seasons. I prefer it to the larger cooking varieties, though this is not quite so large as the Uvedale's St. Germain, but it crops more freely and keeps quite as long. The trees make a shapely growth. Grown as a pyramid it is one of the handsomest trees in the fruit garden. I have seen good standards, but I do not advise growing these fruits as such unless as dwarf standards, as the weight of the fruits and the necessity of allowing them to hang on the trees as long as possible cause many to drop.—G. W. S.

Carnations from Guernsey.—One of the most interesting exhibits at the last meeting of the Royal Horticultural Society consisted of the Carnation blooms from Messrs. Bell and Sheldon. Most of the varieties were of American origin, and we have never seen better blooms of Mrs. T. W. Lawson, which probably was the first to prove of much value for our markets, but since the introduction of this fine variety we have had many others which have been of equal value. Several of our leading market growers now find they are the most profitable to grow. Of those shown three gained awards of merit; they were Enchantress, blush pink, large, full, fragrant flowers, on long stems. This variety has been in cultivation in this country for some time, and is one of the very best. The President, deep crimson, is another fine variety, but there are several with flowers of similar colour and form, Harry Fenn and General Maceo being among them. The President may be a little advance on the last named. Adonis, scarlet, was certainly the finest of the colour I have seen, the large full flowers being very bright and perfect in shape. Several other good American sorts were included, and Mrs. Leopold de Rothschild is rarely seen in

such fine form as the blooms shown. It is interesting to note that the American varieties were all shown under their true names. There is no doubt that some of the American varieties have been renamed by English growers. This would not signify so much if it were not for the fact that it causes so much confusion, and it is disappointing to find that when you think you are buying a genuine English novelty it turns out to be an American (which you already have) re-christened. Now that we have the best American varieties well established there is no reason why we should not be able to still further improve them by intercrossing and raising new seedlings. English raisers have certainly lost ground by discarding the fringed petalled varieties, which were the first to be grown for winter flowering, and it would seem that the Americans have greatly profited by keeping to the true type of what was first known as Tree Carnations. The scarlet variety G. H. Crane (which gained great distinction in America a few years ago) comes very close, though an improvement on one of the first scarlet winter Carnations I knew. With this class of Carnations the method of culture goes a great way, and the American system of planting out secures greater vigour of growth than we can get by keeping them in pots. If only for stock purposes English growers should plant some out every season.—A. HEMSLEY.

Campanula portenschlagiana bavarica.—The old *C. portenschlagiana* has long been known as one of the most useful dwarf plants we have. Although so dwarf it is very vigorous and enduring, and quickly covers a considerable space. On light and well-drained soils it makes a good edging plant, and is so floriferous that the flowers almost hide the foliage. Large masses of it form imposing objects in the blooming season. The variety *bavarica*, which is comparatively rare, has flowers of a deeper shade of blue; in other respects it is identical with the type, and is certainly a most desirable garden flower. Like the typical form it has a way of throwing up blooms in autumn, and one may accordingly see some in November.—J. CORNHILL.

Stokesia cyanea.—There appears to be a tendency nowadays to discard the old well-known plants in favour of a variety that blooms much earlier. In the open ground, and especially in midland and northern districts, the late-flowering variety has undoubtedly little value. In a sheltered sunny situation and when favoured with a very fine autumn the flowers will expand fairly well, but generally they do not get beyond the bud stage. Years ago it was largely cultivated by the London market growers, who treated it in the same way that *Chrysanthemums* are managed nowadays, that is, planted out for the summer, and lifted and put under glass before hard frosts. I am not aware if the *Stokesia* is still grown for market, but it certainly does not occupy an important position in the cut flower trade. It is, however, very useful, the culture is not difficult, and blue flowers in late autumn are scarce. The plants may either be grown on in pots through the summer, treating them liberally, or they may be set out in good ground in March, lifting when the buds are set, and putting them in pots just large enough to contain the roots.—J. CORNHILL.

Cypripedium insigne at the Woodlands.—For many years now Mr. R. H. Measures has had large quantities of flowers of this grand *Cypripedium* during November and December; but this year he has eclipsed all previous displays, having no less than 2,500 blooms out at one time, covering all the range of variety of the *montana*, *Sylhet*, *Chantini*, and every phase and variety of the plant. Mr. Measures has been a collector from the very beginning of the boom in *C. insigne*, even before, and he has acquired plants from nearly every importation that has come to Europe for the last twenty years. He has also imported plants direct. His var. *R. H. Measures* is considered by good judges to be finer than the colossal *Harefield Hall* variety, and this Mr. Measures had long before *Harefield Hall* was heard of. *Magnificum*, *Trismegistum*, *Non Plus Ultra*, and *Facile princeps* are very beautiful. *Mrs. Measures*, *Mary Measures*, *Striata*, *Amesie*,

kimbaliana, *Dorothy*, *statterianum*, *Sandera*, *sanderianum*, *cobbianum*, *Macfarlanei*, and *Chantini Lindeni* are among the better known forms, some of which are represented by many plants of each kind, while many are unnamed. Mr. Measures does not exhibit, but he loves his plants, and it is his great pleasure to enjoy them in quiet contemplation. The two houses that contain the majority of the *Cypripedium insigne* are what is termed "planted out," that is, all the plants are planted on the side benches, and are a mass of healthy green foliage from end to end, every plant flowering in profusion, so that from the front of the stage to the back, and the full extent of the 70 feet long houses no pot or stick or anything is to be seen but a bed of healthy plants, every one of which is full of bloom. *Lycopodiums*, *Begonias*, and dwarf plants are under the stages, and in every nook some little gem is seen. The interior of the whole house is like a little fairyland, as pretty as hands can make it—a great contrast to the dreariness prevailing outside. Great credit is due to the management in this establishment.—ARGUTUS.

"The Amateur Gardener."—This is the title of a new monthly journal, published in Sydney, New South Wales. Its information is such that amateur gardeners are easily able to understand it. Roses are treated of at length. It seems rather strange to read in a gardening paper dated August 1 that "Rose pruning time is here!" Among the illustrations is one of Mr. Mawley, secretary of the National Rose Society, in his Berkhamstead garden.

Cotoneaster angustifolia.—This is one of the many interesting hardy shrubs collected in China by French missionaries, who sent seed of it to M. Maurice de Vilmorin, who raised and fruited it in his richly stocked garden at Les Barres. A number of profusely fruiting branches of this new *Cotoneaster* were exhibited for him at the last meeting of the Royal Horticultural Society at Vincent Square by Mr. George Paul, to whom he sent them. The colour of the fruit is a clear orange-yellow, which is quite new in *Cotoneasters*, and therefore a great acquisition. In general appearance the fruit resembles (in every respect save the colour) that of *Cratægus Lelandii*. Plants of this interesting new shrub can now be obtained at an extremely moderate price from M. Léon Chenault of Orleans.—W. E. GUMBLETON.

Testimonial to Professor Henslow. At a recent meeting of the scientific committee of the Royal Horticultural Society Dr. Masters reported on the steps already taken by Mr. Wilks and himself with the view of presenting Professor Henslow with some token of the gratitude of the committee to him for his ungrudging labours on its behalf for upwards of a quarter of a century. It was agreed that Mr. Wilks and Dr. Masters should carry out the wishes of the committee, and report to it on a future occasion. In the meantime subscriptions may be sent to either of these gentlemen.

Sweet Basil.—This most useful herb (*Ocimum basilicum*), though easily produced during the summer months, needs rather careful treatment in the winter time. For a considerable period I used to cultivate it in boxes about 3 feet long and 1 foot wide, but lost a great number of plants through their damping off in the foggy weather; I now therefore adopt a somewhat different method. The seed is sown in September or early October in boxes, and covered with glass until it germinates; the seedlings are then kept close to the glass until ready for removal. Instead of making use of boxes in which to grow them, I now prick them out thinly into 6-inch pots, and find that if kept on a shelf near the glass in a warm house they thrive very satisfactorily. The shoots need pinching occasionally, otherwise the plants become weak and flimsy. Many persons make successional sowings of Sweet Basil every month or so during the winter; I think, however, that in the neighbourhood of London especially it is preferable to raise the plants early, establish them well in pots, and divide them, say, into three batches. The first I would allow to grow away to furnish the first supply, and stop the others at the first joint. Thus

by the time the first lot had been cut over the second lot would be ready for cutting, and in a like manner the remaining plants would be available for a later period. As soon as the earliest ones were passed over they should be trimmed and pinched into shape and well looked after, in order that they may furnish another supply to follow that produced by the third batch of plants. Thus a succession would be maintained throughout the winter.—Y. Z.

Nerine Bowdeni.—Within the last few years we have had many beautiful new forms of Nerine, but most of them have been seedlings of garden origin. That under notice is, however, a direct importation from South Africa, which, under the lengthy name of *Nerine excellens major tardiflora*, was given an award of merit by the Royal Horticultural Society on October 18 last, since which time it has been finely in flower at Kew, firstly under the name of *Nerine lucida*, and afterwards as *N. Bowdeni*. This change of names is to be accounted for by the fact that investigation at Kew proved it to be distinct from any recognised species, hence it was named in honour of a Mr. Bowden, who first sent the bulbs to his mother at Newton Abbot, in Devonshire. The most remarkable thing about *N. Bowdeni* is the size of the blossoms, as they are larger than those of any other species, while they are disposed in a bold umbel. The colour is pale rose, with a central line of a deeper hue.—H. P.

THE FLOWER GARDEN.

THE CALLIRHOË.

USUALLY the members of the order to which this genus belongs are remarkable for their handsome and stately appearance, as instanced in the Hollyhocks. In the present family, to which the common name of Poppy Mallow has been applied, the various species are of procumbent growth, or only attain to a height of from 1 foot to 2 feet. The number of species contained in the genus is limited to seven, two of which are annuals and the rest perennials, all natives of North America. They are all of easy culture,

flourishing in rich, sandy loam in open situations or in front of taller plants in the herbaceous border. The spreading species, such as *C. involucrata* and *C. lineariloba*, are admirably adapted for covering large spaces, a single plant often forming a green carpet 3 feet in diameter, smothered with a succession of flowers during the summer months. Although the perennial species are all quite hardy and will live through the winter in suitable situations, they are apt to suffer from damp, and where the soil is at all heavy it is safer to lift the plants when they have died down in autumn and pot them up, placing them in a cold frame for the winter. Of the seven known species six are, or have been, in cultivation in this country.

C. alcaoides.—This is one of the erect-growing species, varying from a span to a foot in height, and found on barren plains in the Southern United States. The lower leaves are triangular cordate with an incised margin, while the upper ones are pedately five to seven parted. The rose-coloured or white flowers are borne on slender pedicels, and are about 1½ inches in diameter.

C. digitata (syn. *Nuttallia digitata*).—Also of erect habit, 1 foot to 2 feet high. This plant was first found by Nuttall growing on prairies in the Southern United States. The stems are few leaved, the lower ones round cordate and the upper five to seven parted. The flowers are about 2 inches in diameter, and vary in colour from red-purple to white.

C. involucrata (syn. *Malva involucrata*).—This is a free-growing, charming prostrate perennial, with slightly hairy procumbent stems and leaves, which are three to five parted almost to their base, the segments again being toothed. The colour of the flowers varies from crimson-purple to pale red; they are 2 inches across, and are freely produced during the summer months. It is a native of the Central United States, and is usually found growing on the open plains.

C. lineariloba.—The subject of the illustration is sometimes made a variety of the above

species with which it is connected by intermediate forms. It is, however, less hairy, with much narrower divisions of the leaves and pink or lilac flowers. These often have a white centre, and as the flowers get older the margins of the petals also become lighter. The trailing stems, 3 feet to 4 feet long, radiate from a rosette of radical leaves, soon covering a considerable space, and, like *C. involucrata*, it bears a succession of handsome flowers from early summer to late autumn. A native of Texas, it was introduced in 1884.

C. Papaver (syn. *Malva Papaver*).—This species is a native of the more southern parts of the United States, extending into Florida, and is usually found growing in open woods. It is not so hardy as the others, and requires a warmer and well drained position. From 1 foot to 2 feet high, with ascending stems; the leaves are similar in character to the others, but not so large and more hairy. The flowers are red-purple in colour, about 3 inches in diameter, on long peduncles, and are produced from May to September.

C. pedata.—The only annual species belonging to the genus in cultivation, but one of the prettiest and most useful. Of erect habit, it varies in height from 1 foot to 3 feet, with cordate leaves palmately lobed on the lower part of the stem and trifid leaves at the top. The cherry-red flowers are borne in panicles and have a light centre. It may either be raised in heat and planted out when large enough or sown in the open border where it is to flower. It is a native of Texas, and is found on prairies and in thickets. The other annual species, *C. scabrinsecula*, also a Texan plant, and very similar to the above, is not in cultivation.

W. IRVING.

COLOUR ARRANGEMENT IN THE FLOWER BORDER.

Of the quantities of garden visitors who come—their number has had to be stringently limited of late—not one in twenty will believe that one loves a garden well enough to take a great deal of trouble about it. In fact, it is only this unceasing labour and care and watchfulness—the due preparation according to knowledge and local experience—the looking out for signal of distress or for the time for extra nourishment, water, shelter, or support, that produces the garden that satisfies anyone with somewhat of the better garden knowledge—a knowledge that does not make for showy parterres or for any necessarily costly complications; rather, indeed, for all that is simplest, but that grows into something that is apparent at once to the eye, and sympathetic to the mind, of the true garden lover.

Advisedly is the word “true” lover of flowers used, for it is now fashionable to like flowers, and much of it is pretence only. The test is to ascertain whether the person professing devotion to a garden works in it personally, or in any way likes it well enough to take a great deal of trouble about it. To those who know, the garden speaks of itself, for it clearly reflects individual thought and influence, and it is in these lesser gardens that, with rare and happy exceptions, the watchful care and happy invention of the beneficent individuality stamps itself upon the place.

There is nothing more interesting to one of these ardent and honest workers than to see the garden of another. Plants that had hitherto been neglected or overlooked are seen used in ways that had never been thought of, and



CALLIRHOË INVOLUCRATA.

here will be found new combinations of colour that had never been attempted, and methods of use and treatment differing in some manner to those that had been seen before.

There is nothing like the true gardening for training the eye and mind to the habit of close observation; that precious acquirement that invests every country object both within and without the garden's bounds with a living interest, and that insensibly builds up that bulk of mentally noted incident or circumstance that, taken in and garnered by that wonderful storehouse the brain, seems there to sort itself, to distribute, to arrange, to classify, to reduce into order, in such a way as to increase the knowledge of something of which there was at first only a mental glimpse, and so builds up in orderly structure a well-founded knowledge of many of those things of everyday outdoor life that add so greatly to its present enjoyment and later usefulness.

So it comes about that some of us gardeners, searching for ways of best displaying our flowers, have observed that whereas it is best, as a general rule, to mass the warm colours (reds and yellows) rather together, so it is best to treat the blues with contrasts, either of direct complimentary colour, or at any rate with some kind of yellow or with clear white. So that whereas it would be less pleasing to put scarlet flowers directly against bright blue, and whereas flowers of purple colouring can be otherwise much more suitably treated, the juxtaposition of the splendid blues of the perennial Larkspurs with the rich colour of the Orange Lily (*Lilium croceum*) is a hold and grand assortment of colour of the most satisfactory effect.

Some sort of garden knowledge is so generally professed in these days, and so much more gardening of the better kind is being attempted that people are gradually learning the advantage of planting in good groups of one thing at a time. The older way of putting one each of the same plant at regular intervals along a border—like buttons on a waistcoat—is now no longer tolerated, but a great deal has yet to be learnt. Even planting in bold groups, however good the plants, will be ineffective if not absolutely unfortunate, if relationship of colouring is not understood. The safest plan is to plant in more or less gradated harmonies as to the warm colours, such as full yellow with orange and scarlet, and to plant blues with contrasts of yellows and any white flowers. Then delightful effects may be obtained with masses of grey foliage, such as Lavender, Lavender Cotton, and Stachys, and white Pink, with flowers that have colourings of tender pink, white, lilac, and purple. To acquire a colour eye is an education in itself, founded on the needful natural aptitude, a gift that is denied to some people even if they are not actually colour-blind. But it is a precious possession where it occurs, and all the better when it has been so well trained that the eye is enabled to appreciate the utmost refinements of colour values, and when this education has been carried to the point necessary for the artist, of justly estimating the colour as it appears to be. This is the most difficult thing to learn. To see colour as it is is quite easy. Anyone not colour-blind can do this. But to see it as it appears to be needs to be learnt, for upon this acquired proficiency depends the power of the artist to interpret the colours of objects and to represent them in their right relations.—From *Elgood's "Some English Gardens."*

TREES AND SHRUBS.

COTONEASTER HORIZONTALIS.

WHEN grown in the open this forms a prostrate, spreading shrub. It is a native of the Himalayan region. To see it at its best, however, it should be planted, as shown in the illustration, at the foot of a low wall, to which the main branches should be fastened as they develop, allowing the remainder to grow at will. In the course of a

year or two it will form a plant 3 feet to 4 feet through at the base, and gradually sloping back to the wall at the upper part. The secondary branches are arranged in flattened, irregularly fan-shaped fashion, and are clothed with tiny, ovate, dark green, shining leaves, which take on a rich bronzy tint in the autumn before falling.

Though this plant is deciduous, it is usually December before the leaves are all off, and in a mild season it will keep its leaves through the greater part of the winter. The flowers open in April or May, and are small, white, and inconspicuous. They are followed by small oval or round berries, which take on a bright scarlet colour, and last on the plant until the leaves fall. Apart from its value as a wall plant, it is useful from the fact that it likes a dry, sunny spot, where it is often very difficult to establish any other climber. It is not at all particular as to soil, but it seems to thrive best in a dryish, sandy loam, the main point being to give it a sunny spot, as it is not at all partial to shade. It can be propagated by cuttings of ripened wood or by seeds, which germinate readily. In addition to being a splendid wall plant, this Cotoneaster is very useful for a sunny place in the rockery.

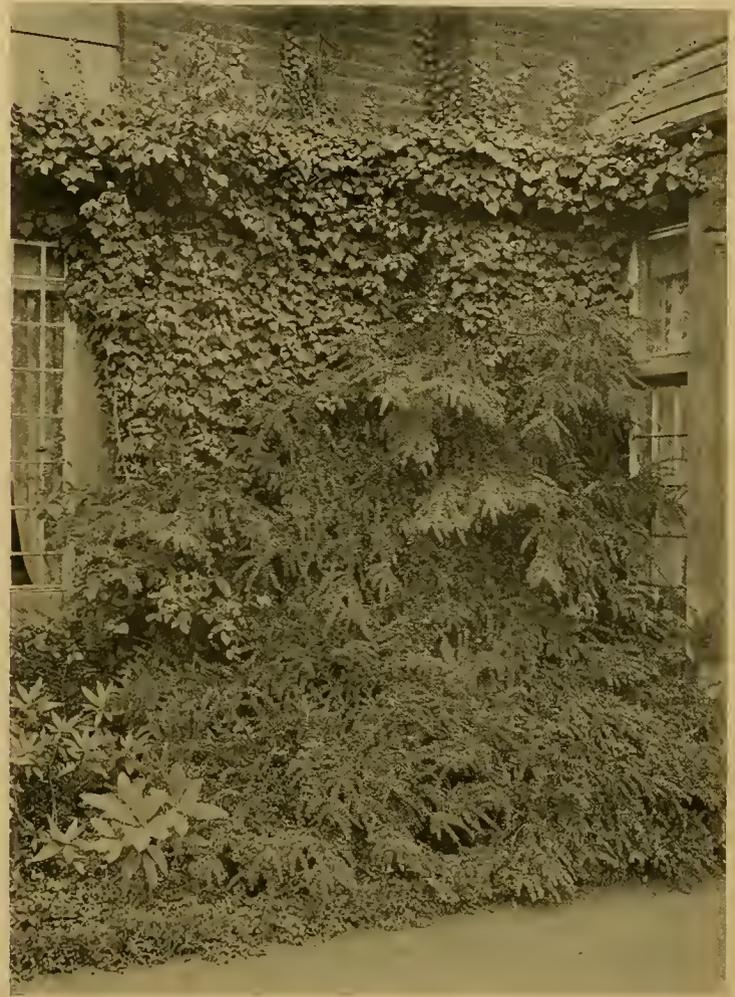
Bagshot, Surrey.

J. CLARK.

THE MAIDENHAIR TREE (GINKGO BILOBA).

So distinct is this tree that there is not the least danger of confounding it with any other, while it is, in addition, of much ornamental value, and remarkably interesting, as it is the sole representative of a type of vegetation long since extinct. This is so well told in Messrs. Veitch's "Manual of Conifera" that an extract therefrom may well be excused.

"Ginkgo is monotypic. The existing species is the sole survivor of an unknown number of others widely dispersed during geological ages over what is now the temperate and colder parts of the northern hemisphere. Fossil remains of Ginkgo have been discovered in systems that were in course of formation at a remote epoch of the earth's history, and which show conclusively that the genus is of astonishing antiquity, and that the first appearance of its ancestral form antedates that of every other existing tree by æons of time. The Ginkgo thus presents to us at least one form of vegetation that flourished on the earth when it was inhabited by unwieldy Ichthyosauri, gigantic toads, and monster Deinotheriums, ages before man entered upon his inheritance. If the association of the Ginkgo with the remote past is of a kind to excite wonder, its recent history is scarcely less a subject for surprise, for the origin of the existing species is shrouded in mystery as obscure as that of its remote ancestors. Its habitat is practically unknown. No naturalist can say that he has seen



COTONEASTER HORIZONTALIS AT KEW.

it in a wild state, and hypothesis alone suggests that it may possibly be found wild in some unexplored district in Eastern Mongolia. For centuries it has been preserved alive by the Chinese and Japanese, who, by associating it with their religious worship and planting it near their shrines and temples, have invested it with a kind of sanctity that has contributed immensely to its preservation amidst a dense population among whom the struggle for existence has long been of an acute kind, and whose resources of fuel and timber have always been extremely restricted. Thus preserved 'it stands alone a perfect stranger in the midst of recent vegetable forms.'

To come to its more recent history, this Ginkgo was introduced into Great Britain about the year 1750, and the first recorded instance of its flowering in this country was in 1795, a specimen being trained to a wall at Kew, which tree still stands, though the wall has been long since removed. A lifelike illustration of this particular individual is given in "Trees and Shrubs for English Gardens," and a fine specimen at Frogmore is also figured in the same work. In this its destructive characters of growth may be noted, viz., the tendency for the trunk to divide up into two or three branches, which all grow erect, or nearly so, the horizontal position of the branchlets, and the drooping character of the minor spray. Besides this the leaves, in shape like the pinnules of the Maidenhair, are widely removed from those of any other tree, and from their shape impart a light and airy aspect to a large specimen. In the autumn the foliage changes to a bright golden colour, when its beauty is most pronounced, but as a rule not of long duration. There are at least three well-marked varieties in cultivation, but

none of them are, however, equal to the typical form. They are macrophylla, leaves much larger than those of the type; pendula, of weeping growth; and variegata, the leaves blotched and streaked with yellow.

The Maidenhair tree is not at all particular in its cultural requirements, but it succeeds best in a good open loam that, though effectually drained, is not parched up at any time. The severest winters do not trouble it in any way. Beside the name of *Ginkgo biloba* it is often known as *Salisburia adiantifolia*, but the first name is now adopted by nearly all botanical authorities. Among its other features is that of succeeding better than most trees near large towns. H. P.

THE FERN GARDEN.

HARDY FERNS IN WINTER.

IF fully exposed during the winter many of our most beautiful hardy Ferns suffer. When under cultivation it often occurs that they do not get the protection they find in their natural habitats. The leaves from deciduous trees provide both protection in winter and suitable material for the new roots to start into in spring. Grasses and other herbage also assist in protecting the crowns during the winter. It appears to me that many who try to cultivate hardy Ferns forget that they are depriving them of the protection they find under natural conditions, and consequently do not succeed. Of course it is not necessary to allow Grass and all kinds of weeds to grow up among the Ferns, yet something should be done in the autumn to make up for this deficiency. A good mulching of leaves may be recommended; either new leaves or those half decayed may be used. I prefer the latter, as they provide more nourishment for the young roots in spring. And besides this, if the plants are much exposed, they should have a covering of dried Bracken or other light material. Bracken is about the best thing that can be used, as it will gradually decay, and by the time the Ferns start into growth the young fronds will be able to push through. Spring frosts are often destructive to hardy Ferns. Many of our British Ferns are worthy of cultivation under glass, more especially the beautiful varieties of the Lady Fern. The beauty of *Athyrium (Asplenium) Filix-femina plumosum* is not excelled, if equalled, in any of the exotic Ferns. When grown under glass care should be taken not to excite them into premature growth. Although a little heat will do no harm in the spring while they are making their growth, giving them warmth during the autumn and early part of the winter will excite them and materially weaken them. Some of the hardy Ferns may be kept in warmth during the winter without suffering much. I find that many of the hardier exotic Ferns will also suffer much if kept too warm during the autumn, though they will grow well in the stove during the spring and summer. F.

A GENERAL CALENDAR.

WINDOW FLOWERS.

PLANTS suitable for the window are not so easily found as may be supposed. Sometimes we see Snowdrops, Aconites, or Crocuses growing in windows, but these are seldom as beautiful as those grown in the open air, for the cold is not uncongential to these plants, and the warmth of a room is far more likely to weaken them than to develop them to greater advantage. The *Coronilla (Coronilla glauca)* is a first-class window plant. It is evergreen and almost always growing. It flowers twice in the year when well managed. The same plant may be preserved for many years, and can be handed down from one generation to another. It is fairly hardy, and whoever fails to keep it for some years, and to have at least one display of its golden flowers annually, has very much to learn in the way of plant growing.

Single Chrysanthemums.—What intense interest is shown in every direction at this season of the year in exhibiting Chrysanthemums, and the bigger they are, apparently the better they are liked, whilst the single forms have to take a back seat. But those who love flowers because of their intrinsic beauty, and not because they win prizes, prefer the light graceful singles. These flower most profusely, they need little or no disbudding, they are very light and elegant for vases, and will last fully a fortnight if cut while still at their best. Single varieties would be much more largely grown if only their ideal qualities were better known.

Iris reticulata.—There is a charm about this lovely Iris that renders it unique more particularly the strong violet perfume of its flowers. Those who grow this Iris in pots should now introduce them into slight warmth, e.g., on a shelf of the greenhouse quite near the glass, flowers may then be expected the early part of January.

Michaelmas Daisies.—Few flowers are more useful than the Michaelmas Daisies. When left year after year in poor soil to struggle for life with all sorts of other plants they do not strike one as worthy of much care, but when planted out good distances apart on fresh, deeply-cultivated soil they will astonish even those who have grown them for years.

Primroses.—It is not often that these simple but beautiful hardy flowers give us such a fine early winter display as they have done this year. Each year a few should be raised from seed and planted about in any spare bit of shrubby or herbaceous border. In moist, heavy soils they luxuriate and form large-spreading masses that one can cut handfuls of flowers from daily in the spring.

Solomon's Seal for forcing.—Of all hardy plants this is one of the easiest to force into flower. If wanted to flower quickly, a brisk bottom and top-heat is needed, otherwise the gentle heat of a bed of leaves will suffice. The pots should be plunged rather deeply in the leaves so that the crowns also are covered. After they have made from 5 inches to 6 inches of growth, gradually

inure them to the light and place them near the glass. When the flowers begin to open remove the plants to a cooler place.

Norwich.

T. B. FIELD.

THE ROSE GARDEN.

ROSE ANALYSIS—III. GARDEN OR DECORATIVE ROSES.

M. R. MAWLEY'S comments on this table are brief, and I give them in full. They are as follows:

GARDEN OR DECORATIVE ROSES.

"The term 'garden' Roses is still used, but it is a very misleading term, as many of our beautiful exhibition Roses are equally good for general cultivation. It is here meant to apply to those varieties which are either not sufficiently large, or not sufficiently regular in form to allow of the individual blooms being set up singly at shows in boxes like the Roses with which we have previously been dealing. In the following table the varieties are arranged according to the average number of times they were staged in prize-winning stands at the last five metropolitan exhibitions of the National Rose Society, and no Rose has been included, bunches of which have not been exhibited at one or other of those shows three or more times. William Allen Richardson is still the leading flower in this section, followed by Marquise de Salisbury, which takes the second place previously occupied by Gustave Regis (No. 3). Next comes Leuchstern (No. 4), which has risen three places since last year. The varieties most frequently shown this year arrange themselves in the following order: Crimson Rambler, W. A. Richardson, Marquise de Salisbury, The Garland, Leuchstern, Mme. Chédane Guinoisseau, Camoens, Gustave Regis, Mme. Pernet Ducher, Rosa macrantha, Claire Jacquier, and Perle d'Or."

GARDEN OR DECORATIVE ROSES.

(TABLE III.)

Position in Present Analysis.	Average Number of Times Shown in the Five Years 1900 — 1904.	No. of Times Shown in 1904.	Name.	Date of Introduction.	Colour.
1	10.6	12	William Allen Richardson, N	1878	Deep orange-yellow
2	9.0	12	Marquise de Salisbury, H.T.	1890	Bright crimson
3	8.4	8	Gustave Regis, H.T.	1890	Nankeen yellow
*4	8.0	9	Leuchstern, Cl. Poly.	1899	Bright rose
5	7.6	14	Turner's Crimson Rambler, Cl. Poly.	1893	Bright crimson
6	7.4	9	Mme. Chédane Guinoisseau, T.	1880	Clear bright yellow
6	7.4	8	Mme. Pernet-Ducher, H.T.	1891	Canary yellow
6	7.4	8	Rosa macrantha, S.	—	Flesh
9	6.6	9	Camoens, H.T.	1881	Glowing rose
*10	6.0	6	Queen Alexandra, Cl. Poly.	1901	Rosy pink
11	5.6	5	Reine Olga de Wurtemberg, H.T.	1881	Bright light crimson
12	5.4	8	Claire Jacquier, Cl. Poly.	1888	Nankeen yellow
13	4.6	3	Paul's Carmine Pillar, S.	1895	Carmine
13	4.6	5	Souvenir de Catherine Guillot, T.	1896	Coppery carmine
13	4.6	11	The Garland, H.C.	—	Blush
16	4.5	5	Mme. Jules Grolez, H.T.	1897	Clear rose
17	4.4	5	Mme. Falcot, T.	1858	Deep apricot
17	4.4	4	Rosa Mundi, Damask	—	Red, striped white
19	4.3	1	Purity, H.B.	1898	White
*20	4.0	4	Lady Curzon, Damask	1901	Pink
20	4.0	6	Mme. Abel Chatenay, H.T.	1895	Salmon-pink
*20	4.0	4	Mme. Ravary, H.T.	1899	Orange-yellow
20	4.0	4	Papillon, T.	1882	Pink and white
*20	4.0	4	Una, S.	1900	Pale buff
*20	4.0	4	The Wallflower	1900	Rosy lake
26	3.8	3	Anne of Geierstein, Sweet Briar	1894	Dark crimson
26	3.8	4	Bardou Job, H.T.	1887	Glowing crimson
26	3.8	4	Ma Capucine, T.	1871	Bronzy yellow
29	3.7	6	Cecile Brunner, Poly.	1880	Blush
30	3.6	6	Paul's Single White, S.	1883	White
30	3.6	7	Perle d'Or, Poly.	1896	Nankeen yellow
*32	3.5	3	Hélène, Cl. Poly.	1899	Pale mauve
*32	3.5	4	Liberty, H.T.	1900	Velvety crimson
34	3.4	4	Hebe's Lip, Sweet Briar	—	White, picotee edge
34	3.4	3	Red Damask, Damask	—	Red
*36	3.3	2	Leonie Lamesch, Poly.	1899	Bright coppery red
37	3.2	5	L'Idéal, N.	1887	Metallic red
37	3.2	5	Rosa moschata alba, S.	—	White
39	3.0	3	Alistar Stella Gray, N.	1894	Yellow
*39	3.0	3	Crimson Damask, Damask	1901	Bright crimson
(3)	3.0	3	Jersey Beauty, H. Wich.	1899	Pale yellow
*39	3.0	3	Rubin, Cl. Poly.	1900	Crimson

* These are new varieties, which according to their ages have been either given an average for two years, or are placed according to the number of times they were staged at the last exhibition alone.

I quite agree with Mr. Mawley's comments on this table. It is not what it represents itself to be, namely, a table of the most useful garden or decorative Roses—far from it. But the fault lies with the National Rose Society. It is really only a table of these Roses that the schedule of the National Rose Society permits to be shown in those classes, which I presume, for the want of a better name, it calls garden or decorative Roses, and it is therefore only likely to be of service to those nurserymen and amateurs who exhibit, or wish to exhibit, in those particular classes in the schedule, namely, for Roses "shown in bunches." Therefore only such Roses as "bunch" well will be found therein. This question of garden or decorative Rose is one of those that the National Rose Society will have seriously to consider. Either the name of the section in the schedule must be altered or such Roses as Caroline Testout, Viscountess Folkestone, La France, &c., must be included, because there is little doubt that the true garden or decorative Rose is to be found in the Hybrid Tea class if it is to be found anywhere, and to exclude from exhibition in a garden or decorative section the many Roses that are the best for the purpose does not strike one as being either wise or expedient. The table includes many of those Roses that are not garden Roses in the true sense of the word. I mean all the early or only once-flowering varieties, and they, surely, are not true decorative plants. Their flowers, especially the single-flowering varieties, are perhaps the most beautiful of any. I am not finding fault with the flowers, only with the system that says these and these only are the garden or decorative Roses. The National Rose Society will no doubt alter this anomaly, for anomaly assuredly it is.

The National Rose Society held, for the first time in its history, this year an autumn Rose show, and, taking into consideration all the circumstances, it undoubtedly was a great success, for it was necessarily an experiment. It was held on September 20, and there is no doubt that to many who do not grow Roses it was a revelation of their perpetual-flowering character. Mr. Mawley did not let the opportunity slip, and the three tables below give the result:

AUTUMN-FLOWERING ROSES.

TABLE IV.—HYBRID PERPETUALS AND HYBRID TEAS

Position in Analysis.	No. of Times shown in 1904.	Name.
1	10	Mrs. John Laing
2	9	Caroline Testout, H.T.
3	8	Bessie Brown, H.T.
3	8	Charles Lefebvre
6	7	Frau Karl Druschki
6	7	Ulrich Brunner
7	6	Mildred Grant, H.T.
8	5	Comte de Raimbaud
9	4	A. K. Williams
9	4	Marchioness of Londonderry
9	4	Mrs. W. J. Grant, H.T.
12	3	Alfred Colomb
12	3	Dupuy Jamain
12	3	Gladys Harkness, H.T.
12	3	Gustave Piganeau
12	3	Horace Vernet
12	3	Mme. Eugène Verdier
12	3	Mme. Wagram, Comtesse de Turenne, H.T.
12	3	Suzanne M. R. Jodanachi

TABLE V.—TEAS AND NOISETTES.

Position in Analysis.	No. of Times shown in 1904.	Name.
1	19	Maman Cochet
2	17	White Maman Cochet
3	10	Mrs. Edward Mawley
4	7	Souvenir d'Elise Vardon
4	7	Souvenir de Pierre Notting
4	7	The Bride
7	6	Ernest Metz
7	6	Mme. Hoste
9	5	Medea
10	4	Bridesmaid
10	4	Catherine Mermet
10	4	Cleopatra
10	4	Marie van Houtte
10	4	Muriel Grahame
15	3	Golden Gate
15	3	Hon. Edith Gifford
15	3	Innocente Pirola
15	3	Maréchal Niel, N.
15	3	Niphetos
15	3	Rubens
15	3	Souvenir de S. A. Prince

TABLE VI.—GARDEN OR DECORATIVE ROSES.

Position in Analysis.	No. of Times shown in 1904.	Name.
1	6	Grüss an Teplitz, H.T.
2	5	Corallina, T.
3	4	Cecile Brunner, Poly.
3	4	Laurette Messimy, C.
3	4	Papa Gontier, H.T.
3	4	Perle d'Or, Poly.
7	3	G. Nabouand, T.
7	3	Leonie Lesmesch, Poly.
7	3	Longworth Rambler, H.T.
7	3	Mme. Charles, T.
7	3	Mme. Jules Grolez, H.T.
7	3	Marie Pavie, Poly.
7	3	Marquise de Salisbury, H.T.
7	3	Mrs. B. R. Cant, T.
7	3	Souvenir de Catherine Guillot, T.
7	3	William Allen Richardson, N.

A comparison with the summer show figures should not be without interest. We find that the three leading Teas are identical, although the Cochets change places and head the list of the most frequently exhibited varieties. Then comes Mrs. John Laing at the head again of the Hybrid Perpetuals, closely followed by Caroline Testout and Bessie Brown, so that Caroline Testout comes in the first six instead of Mildred Grant, which, after all, is perhaps what one would have expected.

Mr. Mawley concludes his most interesting article as follows: "There are many beautiful summer-flowering Roses now in cultivation, but in my opinion, and speaking generally, one continuous flowering variety is worth a dozen which bloom only once in the season. I do not think it is sufficiently realised what continuous flowering plants many of our Roses with due care and attention can be made to be. In fact, considering the long period they continue in bloom, they may be regarded as the freest blooming of all hardy plants. For instance, a garden in which continuous flowering Roses were alone grown would remain more consistently gay from the middle of June until the middle of November than if planted with any other flower. In addition to the varieties named in the tables of Roses most frequently exhibited at the recent autumn Rose show may be mentioned, among others, Antoine Rivoire (H.T.), Augustine Guinoisseau (H.T.), Camoens (H.T.), the common China (C), Dr. Grill (H.T.), Fabvier (C), Killarney (H.T.), Lady Battersea (H.T.), Mme. Abel Chatenay (H.T.), Mme. Eugène Resal (C.), Mme. Pernet-Ducher (H.T.), Mme. Ravary (H.T.), and Viscountess Folkestone (H.T.). Formerly, our freest flowering Roses were the Teas, but now, as will be seen by the above list, which could readily be extended, it is the Hybrid Teas which are the truest perpetuals."

I cannot do better than conclude my comments, as I commenced them, by thanking Mr. Mawley on behalf of all Rose exhibitors for the trouble he has taken for so many years over this matter of exhibition Rose analysis. HERBERT E. MOLYNEUX.

Brantwood, Balham, S. W.

DAFFODILS IN AN ANTRIM GARDEN.

LET us not be depressed by the dull and dreary days of winter which are now upon us; rather let us look forward hopefully to the delights of the spring that is surely following upon their heels. In a few months the Daffodils will be with us again. Daffodils! there is magic in the word. What memories it now awakes in my mind of incidents in their pageant of glory last spring. Prominent among these visions of last season's Daffodils is the remembrance of one calm soft April day when I saw a collection in full bloom, revelling in ideal soil and conditions in the loveliest old garden in the county. First let me describe the situation of this little Eden. It lies in the midst of the most beautiful scenery in the county of Antrim, it nestles in a hollow on the hillside sloping to the south, and is sheltered from every wind that blows. In it the Myrtle reaches a great stature, and Azaleas attain the proportions of small Rhododendrons, and in due season blaze with gorgeous colour, while great Hydrangeas are

smothered in blossom. You may stand at the upper end of it and look out over the tops of trees below to the broad beautiful bay, beyond which rises one of the most magnificent headlands of the famous Antrim coast. On the day I went to see the Daffodils the wonderful peacefulness of the spot delighted me; the air was still, and there was silence, only broken by the song of the birds in the trees; the bay stretched out below, placid and silver-grey.

And what of the Daffodils? There they were, in groups and clumps all over the upper part of the garden. Let us now wander through this little paradise of Daffodils. Here is the beautiful bicolor Mrs. Walter Ware, with its rich gold finely frilled trumpet, beside it is a clump of bicolor J. B. M. Camm, pale and delicate by comparison, with milk-white perianth and exquisite trumpet of a peculiar shade of lovely butter or creamy yellow; it is a flower of fine substance, borne on a stiff stem, is a vigorous grower, and one of the most delicately beautiful; also being now very moderate in price, it should be in all collections. Then there were many clumps of the white trumpet Mrs. Camm; it was growing with great vigour, and the blooms were unusually large and very beautiful with their distinct drooping habit, characteristic of so many of the white trumpets. Yellow trumpets were not wanting. There were quantities of the grand M. J. Berkeley, with their magnificent expanded serrated trumpets, often attaining a width of 2½ inches at the mouth; groups of giant blooms of Glory of Leiden stand erect and look you in the face. Never have I seen this Daffodil so fine, the individual blooms were grand to look at, measuring 4½ inches across. Mme. Plemp was close by carrying blooms of amazing proportions on stems as thick as walking sticks. Empress was also producing huge blossoms and magnificent foliage. Empress is now well known, deservedly popular, and very plentiful. Although an older variety than Mme. Plemp, it is to my mind decidedly better, being a much more refined flower; indeed, I do not know a more lovely Daffodil than a well-grown perfect bloom of Empress, with its magnificent flat white perianth spread out at right angles to the splendid golden trumpet, and no variety produces finer foliage. Mme. Plemp is a larger flower, but not so well formed, and a little coarser. Gloria Mundi was there too, a superb flower, with brilliant clear golden yellow perianth and large expanded cup of rich coppery orange-red—a grand bloom that grows with great vigour. I have it in my own collection, and consider it one of the very finest extant. I discovered that its perfume slightly resembles that of Nutmeg. This may be laughed at, but it was acknowledged by all whose attention I called to it. The Leeds were not forgotten; there was a colony of them by themselves. Duchess of Westminster like a great white star, and Beatrice, pure as snow except for the merest suggestion of pink in the cup, were among them. Barri conspicuous grew in a great mass, and bore a profusion of flowers as big as an ordinary Sir Watkin. I have never seen such splendid blooms of this popular variety. Noticeable here and there were the remarkable deep orange-toned flowers of Santa Maria, a Daffodil that will not grow everywhere, and of course other standard sorts like Emperor and Sir Watkin were represented; but one remarked the absence of the magnificent Maximus, and I am told, strange as it may seem, that it absolutely refuses to grow here, where Daffodils luxuriate, even though it has been tried in every possible way. It is most capricious, and I have never been able to get any very definite information with regard to its culture. I have it myself, but it is not at all vigorous with me. At another part of the garden my attention was attracted by the graceful Incomparabilis Beauty and C. J. Backhouse, with fiery orange-scarlet crowns. A fine effect is obtained on a shady bank beneath tall trees outside the garden, where the charming sky-blue Anemone apennina carpets the ground, with here and there a dainty blossom of the dear little white Daffodil Irish Cernuus rising above the tender green foliage. This little Daffodil is always happiest when seeking its livelihood in a poor soil full of the rootlets of other plants or in the grass.

G. L. WILSON.

ROUND ABOUT A GARDEN.

WHERE THE OLD HEDGE STOOD.

LOOKING at the groups of trees to-day in the pasture beyond the fence, I was struck by the way in which the Walnuts from a single old tree in a garden may be disseminated by the rooks over the surrounding fields; for there is no clump of large trees within sight which has not at least one lusty Walnut in its midst, sprung evidently from some Nut which a rook had carried off and dropped by accident from the branch on which he had alighted to extract the kernel. And the clumps of trees tell more of the history of timber growth than this; for on looking at them carefully you can see that they stand almost in straight lines, parallel to the present hedges. This accounts for the fact that two of them have extremely ancient Hawthorns in their midst, clinging to existence although they have been hopelessly

Walnut tree began to bear a crop to attract the rooks; and since then the growth of the clumps has been further extended by a few Elders and a number of young Hawthorns, which are tangled with Brambles, on the outskirts of each group of trees. Thus, if the place were fenced from cattle the next generation would see patches of varied woodland appearing, all sprung from seeds brought to the clumps by birds.

WASTED SEEDS.

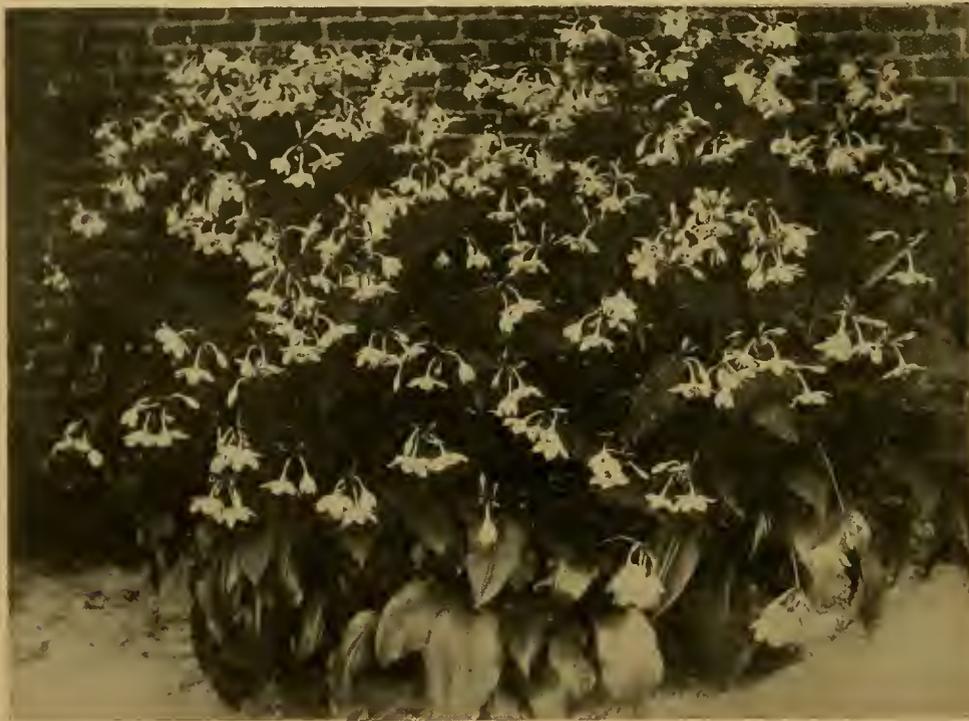
You have only to take a little notice of the doings of the birds in the garden to see what industrious agents they are in forestry, and to understand why Ivy, Brambles, Oaks, Hawthorns, and Elders are perpetually springing up where they are not wanted in the shrubberies. In the case of most garden trees, however, the labour of the birds is wasted. Although, for instance, there may be scarcely a square foot in one part of the garden which the missel-thrushes are not now littering with seeds of the Yew, as they have done in every previous

to grow vigorously in the shade when young, and to get the better of its neighbours afterwards in the free fight for elbow-room. The Hawthorn manages this by sending up strong stiff shoots which cannot be pushed aside, and then, when it has reached daylight, by producing thorny twigs which branch and interlace at every angle, so as to monopolise the invaded space entirely. The Elder's method is different, for it depends entirely upon the rapid growth of its straight shoots each season, so that its canopy of broad leaves may overtop its neighbours and shut them out from the daylight. In any hedge where the Elder has gained a foothold you may see the success of this manoeuvre, even against the fighting Hawthorn; for each year the gap in the hedge where the worthless Elder stands grows wider, the Hawthorns on each side dying away as they fail to reach the sunlight. The Ivy's method, of crawling along the ground till it reaches a neighbour's trunk and then crawling up that to daylight, is simple, but effective; while the Bramble, with its far-flung loops of new shoots, which take root from their tips and so enable the plant to smother from the outside the neighbours in whose shade its infancy was protected, seems the best of all.

BIRDS OR TREES.

It is no wonder that these plants, thus equipped for fighting and scattered broadcast annually by the birds, should prove almost as ineradicable from a shrubbery as weeds from a sown field. Nor, when we see how each old stump and wall on which the birds alight is sprinkled with seeds, is it difficult to understand how Hawthorn and Bramble, Elder and Ivy so frequently find foothold in almost inaccessible crevices of cliffs and ruins. And an interesting problem suggested by the agency of birds in spreading the trees whose seeds they eat, is the question whether in certain neighbourhoods we owe the presence of particular birds to the fact that their favourite fruit trees grow there in abundance, or whether the abundance of the trees is owing to the regular presence of the birds. Do the multitudes of redwings and fieldfares which come over every autumn stay with us because the land is so full of berries for them to eat, or is the land full of berries because in previous years they have scattered the seeds of berry-bearing trees far and wide? Indeed, for all that we know to the contrary we may owe the existence in Britain of most of our berryed trees to the agency of birds which brought the seeds over in their crops in the first instance.

E. K. R.



SINGLE PLANT OF EUCHARIS AMAZONICA AT KNOTTY ASH.

overshadowed for many years by giant Elm or Ash, as well as younger Oaks, Willows, and Walnuts. In one case the old Hawthorn is so gnarled and twisted up with the trunk of the Elm that it looks like a fantastic Japanese wrestler trying to throw a gigantic antagonist. Evidently these clumps of trees mark where old hedges stood, and the two veteran Hawthorns are all that is left of the hedge itself, having been sheltered and protected somewhat from the cattle by the hedgerow Ash or Elm which grew by the side of each.

THE GROWTH OF WOODLAND.

The next chapter in the story of the clumps evidently began with the dropping of Acorns by rooks which had brought them to the trees to eat; but the agency which brought the Willows is not quite so clear, though their seeds are woolly and adhesive and easily transported by birds. The planting of the Walnuts evidently dates, however from the time that the garden

winter, it is rarely indeed that a Yew seedling appears anywhere. These are not fitted to hold their own against the rank and rapid growth of herbage in rich soils. The Holly, too, is so slow of growth that it cannot survive the jostling of herbaceous plants for elbow-room, and only multiplies freely in shady places where few other things can grow, and where even its own ultimate hope of success in life depends upon the death of the trees which gave it shelter in its infancy. In a wood, therefore, where clumps of Holly grow in natural vigour, you may be sure that they mark the place where formerly some shady monarch of the forest, probably a Beech tree, grew.

PLANT WARRIORS.

Bramble, Hawthorn, Elder, and Ivy are the four plants which each in their season most effectively tempt the birds to sow their seeds and make most profit by the transaction. The reason is that each of these plants is specially qualified

A NORTH COUNTRY GARDEN.

THE accompanying illustration shows the grass walk down the centre of the kitchen garden, with herbaceous borders on each side. The grass is much pleasanter to the eye and to walk on than gravel, especially during the summer months. The border is chiefly planted for summer effect with single Hollyhucks. These are mostly self-sown, and are allowed to grow wherever they come up, if not too near other plants. Sometimes they reach 12 feet high. After two years these are of little or no use. There are large clumps of *Anemone japonica alba*, *Chrysanthemum maximum*, *Helianthus*, Japanese *Paonics*, *Rudbeckias*, *Phloxes* in variety, *Delphiniums*, *Galega officinalis*, *Funkia grandiflora*, *Lad's Love*, with clumps of *Nicotiana glauca* and *Stocks* for scent in the evening. An old Apple tree stump covered with *Clematis montana* looks very pretty when this is in flower; it also relieves the outline of

the border a little. Many other plants, including annuals, fill in the bare spaces between the herbaceous plants. In the background are Scarlet Runners trailed on strings about 7 feet high. These are tied to wire running the length of the borders. They form an admirable screen for vegetable crops.

Most gardeners that I have met are afraid to disturb Eucharis bulbs, especially when they are attacked by the mite, lest they should lose them altogether. I think that is where they make a mistake. None have been in a worse condition than those shown in the illustration were a few years ago. The end of February or beginning of March, I think, is the best time to repot them. Most or all of the bulbs will have flowered by that time and have commenced to make new growth. This year the four plants were turned out of their pots about the time mentioned above, all soil removed, taking as much care of the roots as possible, the bulbs washed, any unhealthy portions cut out, and scrubbed with a brush. Fill the new pots with crocks, and place sticks around the sides with some string tied to them to hold up the leaves, having previously prepared some good loam, mixed with sand and charcoal. Place the bulbs close together, covering them a little below the neck and as deeply as they were in the old pots. Make each bulb firm as the work goes on. Very little soil is necessary below the bulbs. I find the roots are more inclined to come up than to grow down. When potting is finished tie up the leaves and place the plants in a temperature of 65° to 70°. Give a good watering and plenty of moisture in the house. New roots will soon appear on the surface of the soil. Very few of the leaves will die except the very old ones. Care should be taken not to let the plants get dry; add a little manure water occasionally. The plant in the top left-hand corner had forty spikes. When the photograph was taken the other three had twenty-eight, twenty-six, and twenty-two.

Knotty Ash. J. SKITT.

COLONIAL AND FOREIGN FRUIT.

IT may be well, now that an exhibition of Colonial and other fruits has just been held by the Royal Horticultural

Society, to draw attention to the articles published in our numbers for August 13 (page 101) and August 20 (page 122), where a number of fruits more or less known are referred to, several of which we have an opportunity of figuring. *Appropos* of these articles and of the Christmas season we have thought that a few words on some other fruits would be interesting at the present time. Many readers of THE GARDEN are interested in foreign native fruits.

A fruit not unfrequently seen in Covent Garden is the

CHERIMOYER, the produce of Anona Cherimolia, a tree growing some 15 feet to 20 feet high, probably a native of the American Continent, and found in Peru, New Grenada, Venezuela, and Brazil. It is also cultivated in the Cape de Verde Islands and on the coast of Guinea. It is known under a number of names, and the fruits differ very much in character, size, and flavour. It will be recognised as a close ally to the Sweet Sop or Custard Apple referred to in the previous papers. Other species of Anona, perhaps not

much appreciated as the other species mentioned. A close ally to the celebrated

MANGOSTEEN of the East is the Kokum of India (*Garcinia indica*). It is a moderate-sized tree, with spreading branches, found wild and cultivated in many parts of India, especially in North Canara and to the south of the Concan. The flowers appear in November and December, and the fruits ripen in the hot season from February to April. They are about the size of a small Apple, nearly spherical, smooth, and of a dull red or purplish colour. The flesh is also of a dark purplish red, firm, and juicy. It has an agreeable acid flavour, and is eaten by the people.

It is also used on the western coast of India as an ingredient in curries. These fruits are often seen in the bazaars in a dry state, having been prepared by exposing them to the sun after removing the seeds, from which a solid fat or kind of vegetable butter is obtained called Kokum butter. The possibilities of this fruit is more for preserving than for eating in a raw state.

MAMMEE APPLE (*Mammea americana*).— This is a large tree belonging to the same natural order as the last. Native of the West Indies and tropical America, where it is cultivated for the sake of the fruit. The plant has also become naturalised in tropical Africa and in Asia. The fruit grows to a very large size, sometimes to that of a child's head. It is of a yellow colour. The outer rind and the pulp which immediately surrounds the seeds are very bitter, but the fleshy portion which lies between is sweet and aromatic, and is eaten either cut into slices and steeped in wine or made into various kinds of preserves.

ROSELLE, OR RED SORREL.—The first is the Indian and the second the West Indian name of *Hibiscus Sabdariffa*, a pretty shrubby annual commonly cultivated in hot countries. The plant is grown principally for the sake of the fleshy calyces and fruits to which they are attached. These have a refreshing acid taste, and are largely used for making tarts, as well as for preserves and jellies. A very refreshing drink is also prepared from them. Roselle jam is occasionally seen amongst collections of Indian preserves, Chutneys, and pickles in this country, but its good qualities are very little known. The large fleshy calyces are shown in the figure.

LIMEBERRIES.— This name is sometimes given to the berry-like fruits of *Triphasia trifoliata*, a spiny shrub of the natural order Rutaceae, a native of China, but common in



GRASS WALK AND MIXED BORDERS AT ASHFIELD, KNOTTY ASH, LIVERPOOL.

so well known, are the Sour Sop (*Anona muricata*) and the Bullock's Heart (*A. reticulata*). The Sour Sop of the West Indies is a large fruit, sometimes weighing over 2lb. It is of a greenish colour, somewhat heart-shaped, and is covered with prickles. The pulp is white and has an agreeable flavour. The Bullock's Heart is a native of the West Indies, but is cultivated also in the East. The pulp is yellowish, and, though generally eaten in the tropics, is not so

gardens throughout India, into which country it has long been introduced. The fruits are about the size of a small Hazelnut, and have a red skin and an acid pulp. They are generally eaten by the people in Southern and Western India, and are also frequently used in conserves and pickles, besides which they are very often mixed with Chinese preserved fruits.

JOHN R. JACKSON.

Claremont, Lympstone, Devon.
(To be continued.)

NOTES ON HARDY PLANTS.

CYCLAMEN LIBANOTICUM.

FOREMOST among hardy species for size and effective display, and doubly valuable on account of its welcome habit of flowering in midwinter, this Palestine Cyclamen has proved an acquisition indeed, and one cannot too strongly recommend it for rockery planting, the warm border, and particularly for the alpine house, where its flowers could expand whatever the weather outside. It is absolutely hardy and exceedingly free flowering. Old and large corms, though not always the best in the genus Cyclamen, yield pretty tufts of sweetly fragrant flowers of extraordinary size, and smaller corms, equally floriferous, are not far behind in size of blossom. The leaves are very stout, rounded (cordate-acuminate), and marked with a white horseshoe-shaped zone, and they occur in handsome tufts. The flowers are 6 inches high and nearly 1 inch across, varying a little in colour, but generally palest pink, with deep rose petal tips and crimson spotted throat. Its sweet fragrance is remarkable in an alpine house on a sunny morning in midwinter, and just as pleasing, but not so powerful, in the open. It succeeds admirably here in half shade thrown by Poplars, and the subsoil is dry in summer and wet in winter, conditions that appear to suit the Cyclamen well. It grows well in harsh clay soil, with leaf-soil added, and, so far as I have been able to test with other soils, it does not appear to be difficult to grow anywhere. I have had it under cultivation in quantity for two years and a few bulbs for three years, and these have increased in size and ripened seeds where undisturbed.

Colchester.

G. B. M.

NOTES FROM A NORTHERN GARDEN.

THE winter and spring of 1903-4 were in my garden on the west coast of Ross-shire as favourable as any such seasons could possibly be for the welfare of exotics; there was neither the intense cold of the early spring of 1902 nor the never-ceasing hurricanes and floods at the same period of 1903, and thus I have next to no casualties to report. A heavy snowfall without wind early in December broke a few of my shrubs, particularly a fine *Andromeda arborea*, which still retained its beautifully tinted leaves, and my big Japanese *Loquat* lost several boughs; some of the *Phormiums* had a portion of their leaves bent over; but otherwise everything has pulled through extremely well.

Although it is only three or four years since the Japanese garden was reclaimed from a wild state of nature it has made rapid strides, and is now a most civilized little spot. It is just a glade in the plantation, close to the salt water's edge, and one is struck at once by its very foreign look, chiefly owing to its *Cordylines*, *Palms*, *Bamboos*, *Eucalypti*, and *New Zealand Flaxes*. Why does not everyone start growing *Phormiums* and *Bamboos* when they are quite as easy to grow as the *Laurels* and the *Privets*? Anything handsomer than giant clumps of either of these I cannot imagine. I have the former in great variety—the green leaved form from the New Zealand swamps, the silver striped, two kinds of gold striped and banded, the purple *Phormium*, and two dwarf kinds which I am told grow on hard ground in their native land; one of them, *Phormium Colensoi*, is a perfect gem, which everyone should have; nothing injures it, as its

shorter leaves never get bent or broken over like those of its big sisters.

Of *Palms* I think I can speak with some authority, having grown them out of doors for 30 years, and I have never known one of them in the slightest degree injured by wind or weather. I started with a little bag of seed of what was said to be *Chamærops Fortunei* from Japan. The seedlings came up like Mustard and Cress; but, though I guaranteed them hardy, I could find no one with sufficient faith to relieve me of my surplus stock. I am trying *Chamærops excelsa* and *Chamærops humilis*, and they also appear to be quite hardy. My two *Drimys* (both *Winteri* and *aromatica*) are most thriving bushes, and so are the *Benthamsias*, *Abelias*, *Daphniphyllums*, *Metrosideros lucida*, &c.; my *Chilian Fire Bush* (*Embothrium coccineum*) is coming on grandly, and in another year I shall expect it to show its fiery blossoms. I rather think that (like *Davidia involuerata*) it is the only one of its kind in the North Highlands, but last year I saw a fine specimen on the shores of Lough E-ke, in the Highlands of Donegal, which flowers profusely.

I made with great pains this last winter special places for *Bamboos*. Would that I could make them proof against field mice and voles, who gnaw them clean through, mistaking them, I suppose, for sugar canes! I have made the pits very deep, with alternate layers of black peaty earth, manure, decayed sea-weed, bone-dust, and old lime mortar. I have placed them in nooks in the wood, with the trees cut out to allow the rays of the sun to strike straight on them. A year or two will prove if I have done my work well, and I shall be much disappointed if my *Bamboos* do not grow into giants.

How time changes things! In 1864 I was planting these bleak shores with *Firs*, &c., and everyone shaking his head and prophesying nothing would ever grow on the exposed promontory in the thin covering of sour peat upon wet rocks. I must say I often felt very doubtful as to the results, and never dreamed that I would live to cut down trees 50 feet high, and to be tying up home-growing *Eucalypti* to home-grown *Bamboo* stakes (which we have been actually doing of late).—Extracted from notes by OSGOOD O. MACKENZIE in the *Glasgow Herald*.

CHRYSANTHEMUMS.

NEW VARIETIES.

TO prove of assistance to those who have not had the opportunity of seeing and judging for themselves I append a list of varieties which have come under my notice and are unquestionably of great merit. Though there are, undoubtedly, several others also worthy of a trial, I refrain from mentioning any except those which I am able thoroughly to recommend. All who wish to maintain a really up-to-date collection must add and discard annually.

Mrs. W. Knox (Australian).—This is a fairly large, pleasing flower, solid, with broad, recurring florets. The colour may be described as a clear chrome-yellow.

Georg's Hutchinson (Penford).—An acquisition to the deep crimson varieties. It is an improvement in form and size on the variety *Violet Lady Beaumont*, which, in regard to size, has not come up to expectations.

Mrs. A. H. Lee (N. Molyneux) is another very large crimson flower. It was thought much of at the Crystal Palace show. The florets are of great length for a crimson, and the flower very full.

Lady Lenard (Jones) is an incurved Japanese variety of a rich golden amber shade, a flower of good form.

Miss Mona Davis (Penford).—This is a lovely flower of a creamy white shade, said to be easily grown, good both early and late, and is of dwarf habit.

Algernon Davis (Davis) is described by the raiser as a bronze *F. S. Vallis*, though I understand it is a seedling. It has just the form of *F. S. Vallis*, and will no doubt prove a valuable acquisition.

Mrs. Charles Davis (Davis).—This is the last of a trio of the same family name. It created some sensation at the Crystal Palace show on account of its fine form and magnificent colour, which is the deepest gold yet seen. The raiser calls it an improved form of *Duchess of Sutherland*.

Walter Jinks (Jinks).—Here we have a grand flower of a rose shade. It is of fine form, large, and deep, and is built up of loosely curling florets. Colour silvery rose.

W. Wilson (Jinks).—Rich crimson amaranth, best described as an improved form of *Pride of Madford*.

E. J. Brooks (Wells) is another of the same rich colour as the preceding, and is a splendid acquisition in every way.

Mrs. D. Willis-James (Australian) is bright red, with golden bronze reverse, a flower of moderate width, but great depth. Perhaps its best quality is its bright colour.

Mrs. J. Dunne (Wells).—A very large flower, with drooping florets of great length. The ground colour is golden buff, and the whole flower is suffused with shades of salmon and rose. Very fine.

Marshal Oyama (Davis).—A large, solid flower, with strap-shaped florets. The colour is distinct, buff overlaid with chestnut. A variety that will find many admirers.

Leigh Park Rival (Penford) is a large, solid flower of a rich orange, shaded bronze. Should prove a good exhibition flower.

Lady Curzon.—If not one of the largest, it is certainly one of the choicest of the season. Colour clear citron, with flushes of red; the florets hang most gracefully.

Mrs. R. C. Pulling (Jones).—A large flower of fine form and finish. The florets, though only of medium width, are of good substance, and droop gracefully. Colour white, overlaid with rosy pink.

Miss Elsie Miller (Mileham).—Creamy white, shaded with bright pink. Flowers large, and of fine drooping form.

Chrysanthemiste Montigny (Calvat).—A list of new introductions would not be complete without mentioning this really fine variety. Very large. The florets are of great length, and a clear canary yellow colour.

Mrs. C. Beckett (Davis).—A magnificent variety of the purest white. Of immense depth, lasting a long time in beauty. The plant is dwarf, and very robust. Good for any purpose.

Elstree.

E. BECKETT.

MARSHAL OYAMA.

THIS is one of the most recent and promising additions to the Japanese *Chrysanthemums*. Mr. Norman Davis has sent me a flower that impresses one with its undoubted value for exhibition. It is very large, having fairly long and broad florets of good substance; it is of great breadth and depth. The colour is bright and attractive, and may be described light crimson on golden ground, with a bright golden yellow reverse.

ALGERNON DAVIS.

AMONG the many good Japanese novelties of the present season this certainly has claims to distinction. The flower submitted to me by Mr. Norman Davis is very pretty. The petals are long, and broad to medium in width. The latter build a full flower of drooping form, the petals twisting and curling in a distinct manner. The colour is not the least of its charm, this being bright yellow at the base of the petals, heavily suffused or rather overlaid with light crimson at the ends, with a golden yellow reverse. A promising variety.

D. B. CRANE.

PHENOMENAL SUCCESS OF AN INCURVED CHRYSANTHEMUM EXHIBITOR.

Now that the exhibition season is over it is interesting to note the achievements of some of the leading growers of the *Chrysanthemum*. Mr. W. Higge of The Gardens, Fetcham Park, Leatherhead, has had phenomenal success; in fact, he has been invincible. At Portsmouth show this grower

secured first prize for twenty-four Japanese and twenty-four incurved, and on the same day at the Crystal Palace he secured the premier position for twenty-four Japanese in a competition of seventeen entries, first prize also for thirty-six incurved in the Holmes Memorial class, first prize also for six vases of incurved (each containing six blooms), and first prize at the same show for twelve incurved, distinct. Mr. Higgs followed up these successes by winning first prize for twenty-four incurved and twelve incurved at the great Sheffield show, also winning first prize for twenty-four incurved at Bradford on the same day. He also secured leading honours and silver cup at Bolton for twelve Japanese and twelve incurved. At the same time first prize respectively for twenty-four Japanese and twenty-four incurved together was won at Manchester show by Mr. Higgs, which award also gave him the Earl of Derby's Silver Challenge Cup. This is an achievement of which anyone might well be proud, and is a striking testimony to this grower's system of culture.

SINGLE CHRYSANTHEMUMS.

THE most gratifying fact in connexion with the cultivation of the Chrysanthemum is the increasing interest now shown in decorative sorts of all types. The single-flowered varieties that were only lightly esteemed rather more than a decade since are now regarded as of the greatest value. There is infinite variety in this type of the flower, both in colour and form, and as they may be had in bloom from September until December, or even later, the plants have a value excelled by no others. The severely disbudded flowers that are usually staged at the Chrysanthemum exhibitions are apt to lead the inexperienced to think they are very formal and stiff. As a matter of fact, they are the opposite, but the plants must be grown more freely. Numerous sorts have an excellent habit of growth, being bushy and sturdy, developing a display of dainty blossoms in elegant sprays. For house decoration the singles have a special value.

One may cut often without materially interfering with the beauty of the plants, new buds and other partially developed ones continuing the display. The exhibitions seem to miss the mark altogether. Nothing that I have ever seen in the competitive classes at the leading shows has been sufficiently attractive to induce outsiders or others to take up the cultivation of this type for decorative purposes. The terms of the competitions appear to need complete rearrangement. One or two of the leading trade specialists have illustrated how these flowers should be set up, and if classes were instituted in the schedules on these lines much good would be done.

The general impression appears to be that the Japanese and incurved varieties should largely preponderate at the Chrysanthemum shows now held each season. While this idea continues to be so rigidly held no real progress can be made. Even with our vase classes, which must be regarded as a step in the right direction, the shows are monotonous in their arrangement. So few persons after all can find a decorative use for these large blooms that exhibit the highest cultural skill.

The freer displays of the singles are calculated to change much of this monotony. If the

Chrysanthemum societies throughout the United Kingdom would only take a broader interpretation of the object for which they were created, viz., "to promote the cultivation of the Chrysanthemum," the chances are that the single-flowered and other decorative sorts would receive a far larger share of attention than is now the case. The singles will last for two or three weeks when used in a cut state, and they make admirable bush plants.

As the days begin to lengthen in late January and February cuttings should be inserted of all sorts that are available. During March and succeeding months they may also be propagated with success, making excellent plants from this later propagation. In almost every other respect their treatment should be identical with that of

condition. These plants were lifted in mid-October, and since that time have been standing in a cold greenhouse.
D. B. CRANE.

WORKERS AMONGST THE FLOWERS.

MR. J. D. PEARSON, of the well-known firm of nurserymen, Pearson and Sons, has been for many years an enthusiastic and very successful grower and exhibitor of the Narcissus, and is also a successful cross fertiliser. His first efforts in this direction, dating from about 1887, gave him much needful experience as to what particular varieties were best to use for

pollen and seed bearers, and he is now beginning to reap excellent fruits of his labours. Among his new seedlings may be mentioned Florence Pearson, Alert, and Lowdham Beauty, and many more are coming on, from which even greater things are expected. Mr. Pearson is an active and much-valued member of the Narcissus committee of the Royal Horticultural Society, and is also a member of the sub-committee appointed recently to make suggestions for the revision of the classification of the Narcissus. A seller of bulbs is much tempted to fall in with the popular notion that "big things" in Daffodils are necessarily the best; but Mr. Pearson does not allow his artistic sense to be thus over-ridden, and he is an advocate for beauty and refinement in a flower rather than size.



MR. J. DUNCAN PEARSON.

other types of the flower. It is an excellent plan to plant out in a good open position in the garden a number of plants in variety. These pieces as a rule make handsome bushy specimens, and should be lifted when the buds are well set and transferred to pots, boxes, or any convenient receptacle. A good watering in and shade for a few days will suffice to establish such plants, and from treatment of this kind a free display of welcome blossoms invariably results. Plants treated in this way are very easily managed, the saving in labour alone being considerable. At the time of writing (the 1st inst.) we have plants of Miss Mary Anderson (blush white) and its buff-yellow sport Miss Annie Holden in the pink of

The hedge prunings and any that are not required for the above purpose should be burnt, making use of a smother fire, which will not only yield considerably more valuable ash than a blazing fire, but is also incomparably safer, and by its use the prunings and litter may frequently be consumed on the spot, saving the labour of removal. Many of the shrubs, especially the flowering kinds, which have occupied the same positions for any length of time, will be the better for a dressing of manure. Where it will not be too much in evidence, this may be applied as a mulching, but otherwise it should be lightly forked in. Any gaps at the front may be filled with surplus plants of Wallflowers, Polyanthus, &c.

GARDENING OF THE WEEK.

FLOWER GARDEN.

THE SHRUBBERIES.

WHERE there is much pruning to be done a start must, perforce, be made now. In many establishments there is always a great demand for quantities of evergreens, not only for home decorations, but also for the Christmas celebrations at the parish church, the various local charitable institutions, &c. The cutting of these supplies will probably more than serve to keep all the stronger growing evergreens within the desired limits. Much judgment is required, and the actual work of cutting the branches should be only entrusted to the most reliable men, or ill-balanced specimens and stumpy shoots will be the result.

LAWNS AND WALKS.

Frequently rolling the lawns and paths serves to impart a trim appearance to the garden and to tide over this dull and comparatively uninteresting period. During showery weather the gravel walks should be inspected, and those places the rain water collects in marked for early attention. Unless it is intended properly to drain a considerable stretch of walk, these patches should be dug up to a good depth. If the subsoil is of a close, retentive nature, it should be removed and replaced with broken brick, clinkers, or the like, replacing and rolling the gravel. Tiles inserted edgewise by the sides of steep paths will prevent most of the "washing" during heavy rains. Catch-pits must now be frequently cleaned, and floating leaves and twigs removed from the entrance to the overflow of all ponds.

CARNATIONS.

As soon after frost as the soil has become moderately dry, the plants should be pressed firm. Occasionally during the winter cats will eat the growths, and any otherwise unexplainable damage may be traced to the same cause.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

VIOLETS.

THESE plants in frames now require air in abundance, and decayed leaves should be picked off. Unless there is a likelihood of 5° to 6° of frost, do not cover the frames, for during mild weather this has a tendency to create damp. The application of water to the roots is seldom necessary until the New Year, but, when essential, select a fine day and apply tepid water in the morning, the plants afterwards being left fully exposed all day. In the case of plants growing in heated pits water will be required more often, and there will be no dampness if the lights are tilted a little both day and night. Plants that are grown under the latter conditions are not the best from which to propagate the next year's stock, so immediately they have done flowering throw them away, and use the pits for another purpose.

CLIVIAS,

which are given a position in a perfectly cool house, must not have much water at the roots, although it would be a mistake to let them get very dry. Excess in either case will cause their leaves to decay at the tips. A night temperature of 40°, with a rise of 5° to 10° in the day, will suit them very well. Here they can remain until the New Year, when any number of plants to suit requirements can be introduced to a warmer temperature, and be given more moisture to induce them to produce their flower spikes.

CHOISYA TERNATA

that until now has been kept exposed to the frost may be brought into the forcing house; a viney that is just being started is an ideal place. When in good foliage and in full flower, this plant associates well with those of a deciduous nature, such, for instance, as Ghent Azaleas, Prunus, Lilacs, &c.

SOLANUMS.

At this dull season these soon become infested with green fly, and require occasionally to be fumigated. Select a few of the finest and ripest berries, from which to obtain the seeds for sowing another year, and put these in a sheet of paper in a sunny and well aired position to mature.

CLERODENDRON FALLAX.

This must now be pruned hard back before placing the plants in a moist warm temperature to grow. Those raised from seeds sown during the summer are making good progress in a position near the glass in a house the temperature of which is kept at 60° to 65°. They derive considerable benefit from an occasional dose of well-diluted sheep manure liquid.

PANDANUS VEITCHII.

This is still one of the best table plants. It should be propagated at all seasons of the year. The very small offsets are now being taken from

the base of old plants, and these are inserted singly in 2½-inch pots, in sand only, the pots being afterwards plunged in a brisk bottom-heat.

J. P. LEADBETTER.

Tranby Croft Gardens, Hull.

FRUIT GARDEN.

EARLIEST POT VINES.

THE weather has not been favourable for the early forcing of these. When the vines have started into growth well the temperature should be raised to 55° or 60° on mild nights and 70° to 75° on bright days. Avoid high temperatures in severe weather, as this induces a weak growth; any loss of time is better made up later on when the berries are formed. The vines should be tied into position as soon as growth has commenced, and a little ventilation should be given every day if possible, if only for a short time. Remove all the weakest shoots that are not required, leaving only the best placed growths. Stop the shoots two or three joints beyond the bunch, according to space, and remove all bunches not required for furnishing the crop before the vines come into flower. Discontinue syringing the vines, and keep up a moderately moist atmosphere by adding fresh fermenting material to that already in use, and turn this to keep up the warmth. Damp the fermenting material occasionally with weak liquid manure. Water should be carefully given until growth has commenced, and weak liquid manure may be given occasionally, making it stronger as the vines increase in growth.

EARLY PERMANENT VINES.

These require similar treatment to pot vines. Small houses with shallow inside borders, and where it is possible to cover the roof lights with mats, give the best results, as the necessary temperature is more easily kept up without hard firing. In larger houses, where fermenting material of litter and leaves can be mixed up and turned occasionally, this will give off moderate moisture and warmth, and reduce the necessity of so much syringing. The outside borders should be covered with a good depth of leaves or Bracken, and spare lights placed over to keep off heavy rains. Old rods may be tied into position, but tie down the points of young vines, which have not been forced before, to induce a regular break. A little ventilation should be given on all favourable occasions. Early Muscats, from which ripe Grapes are expected in June, should now be started, and given 5° higher temperature than the above, with similar treatment in other ways.

LATER VINES.

The pruning should be pushed forward so as to give the vines as long a rest as possible. If they are clean very little loose bark should be removed; a good washing of soft soap is all that is necessary. If any bug is in evidence severer measures must be taken, the house must be carefully washed and painted if possible, the walls well washed with hot lime. All loose bark should be removed from the vines, and the rods well washed two or three times with 8oz. to the gallon of Gishurst Compound. Remove all loose soil carefully from the border before top-dressing with fresh compost.

Impney Gardens, Droitwich.

F. JORDAN.

KITCHEN GARDEN.

EARLY PEAS.

It is necessary that ground for this most important crop should receive a thorough preparation. The south border should be turned over as soon as possible. If the land is of a stiff and clayey nature old potting shed refuse may be added to it, together with a liberal supply of well-prepared manure. If the ground has not been trenched for a few years it should be done for this crop. On very light soils an effort should be made to add some good loam. Ground for the main crop should also be trenched without delay. No crop pays better than this for liberal treatment. A good plan for the Pea ground is to throw out a trench just where the crop is to be sown and fill it with manure which has been mixed with good turfy loam. The growing of Peas in pots is undoubtedly on the increase,

and these Peas are always highly appreciated. Where several hundred pots can be grown many good dishes will be gathered, but it is not worth the trouble to grow less. That this method is on the increase is seen from the fact that several of the leading raisers are experimenting with a view to secure varieties that are suitable for this purpose. After a trial of several sorts I prefer Chelsea Gem and Sutton's Dwarf Forcing Pea. I have noticed American Wonder recommended for this work, but it was not a success here. It is a mistake to sow too early; the first week in January is soon enough, as a sowing then will be ready for gathering as soon as those sown in the middle of December. The soil should be prepared now and should be of a turfy nature, to which some leaf-soil of old Mushroom manure has been added. The compost should not be rich, as this promotes a rank growth. Stimulants are in good time when a set has been secured; 9-inch or 10-inch pots will grow this crop well. The pots should be placed in a cool house, and at no time should a high temperature be given them. The chief point is cool treatment, affording at all times plenty of ventilation. It is also necessary that the seeds should be sown thinly, six or seven plants being an ample number, which pays better than a thickly-covered pot. If the plants can be staked out it is a great advantage, but this entails much labour at a very busy season. A few Spruce or Birch twigs will keep the plants right, and these should be put in in good time. Procure seeds from a reliable source or only disappointment will ensue.

Hopetoun House Gardens,

THOMAS HAY.

South Queensferry, N.B.

ORCHIDS.

ORCHIDS AT THE GLEBELANDS,
SOUTH WOODFORD.

CALLING a few days since at the above address, the residence of Mr. J. Gurney Fowler, treasurer of the Royal Horticultural Society, and well known as the home of a highly interesting collection of Orchids, we noticed in going through the houses with the head gardener, Mr. Davies, a grand lot of Dendrobiums, with well-developed pseudo-bulbs, giving promise of a great display of flowers later on. The varieties were numerous, but great batches were to be seen of *D. wardianum*, *D. thyrsiflorum*, and *D. heterocarpum*. Several specimens of the latter are now in full bloom, loading the air with delicious perfume. Mr. Fowler grows batches of Epidendrums, and there is now a group of many plants of *E. Armstrongii* in full blossom, all different and all charming. Being planted out they are far finer than usual, the flowers being particularly good. *Odontoglossums* are growing well here now, since more humidity has been provided for the plants. It is really wonderful what strides the plants have made in less than a year. A good batch of *Masdevallia tovarensis* was noticed in this house. This is one of the few really white Orchids of easy culture, and the flowers are always delightful. The *Cypripediums* are well done, and many were in bloom, including the best and most popular kinds, such as *C. insigne Sanderæ*, *C. insigne Harefield Hall*, *C. harrisianum albens*, *C. clinkaberry-anum*, *C. leeanum giganteum*, *C. fowlerianum*, and *C. Mrs. Alfred Fowler (lathamianum × Charles-worthi)*. The bright upper dorsal of this charming variety is perhaps best described as a mixture of deep red and bright pink. Many others were in bloom, including a new hybrid flowering for the first time. *Cymbidium*s are a noticeable feature at the Glebelands. Grown in a cool house the plants are sturdy, clean, and full of vigour, with a promise of a wealth of bloom to come. A batch of *Cattleya labiata* in the big *Cattleya* range was just passing out of bloom, a few dozen flowers being left. The *Cattleyas* are in excellent condition. All through they are a very fine lot of plants. *Lelio-Cattleya Illione (C. bowringiana × L.-C. dominiana var. Langleyense)* was in perfection. The bright, rich

crimson blossoms have a glow about them that is unapproachable in any hybrid that we know of in this way, and Mr. Fowler's variety is the finest known. ARGUTUS.

WORK FOR THE WEEK.

ONCIDIUM MACRANTHUM AND O. SERRATUM.

The long scendant spikes of this section of *Oncidium* are now fast lengthening out, and the training of them should be constantly attended to. Tie them to a piece of string strained along the house. This mode is preferable to tying them around stakes; we find the flowers come better and have more substance, and they can easily be tied to stakes when in flower if it is so desired. Many strong roots are now being emitted; these should be carefully watched. Slugs have a special liking for them. If they are lost much of the support that should sustain the plants during the severe strain of flowering is gone. The racemes should be removed from any plants that show signs of shrivelling; if allowed to remain the flowers would be very poor and the plant nearly ruined. We have several spikes now over 12 feet long, and they will not flower before next July, so if the pseudo-bulbs were not in a very sound state, and the roots too, disaster must follow. It is necessary to water them only when they become really dry during the short dull days.

ONCIDIUM ORNITHORHYNCHUM.

This beautiful little species is now passing out of flower, and in most cases the new growth is 2 inches high. New roots are being emitted, and the necessary repotting or surfacing may be done. Use a mixture of fibrous peat three parts and one part each of sphagnum moss and leaf-soil; use ordinary pots, making them nearly half full with chopped rhizomes, pot rather lightly, and surface with moss. Give a position in the cool intermediate house. Water must be carefully applied till the growths have made more progress.

DENDROBIUMS.

Many of the semi-deciduous sorts are now fast pushing out their flower-buds, and they must have rather more water. Those that are not so forward need only enough water to prevent shrivelling. Where the practice of removing the plants to cooler structures for resting is carried out the forward ones may be taken to the warmer houses and the others allowed to remain; by this means the season of flowering may be prolonged. If growers would more generally get *Dendrobiums* in flower in January and February, instead of March and April, these Orchids would again attain the popularity they once had. The sweet-scented *D. heterocarpum* (syn. *D. aureum*) is now in flower, and proves very useful where button-holes are required. Water should be very carefully applied; very little will suffice to maintain a well-ripened plant. Another very useful *Dendrobe* for flowering now—in fact, it is in flower more or less all the year—is *Dendrobium Cassiope*. This requires rather more water than most of this section. Another one for Christmas flowering is *D. Artemis*, raised by us from *D. splendidissimum grandiflorum* and *D. heterocarpum*. The influence of heterocarpum twice has been the means of bringing it naturally into flower at that season.

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

THE INDOOR GARDEN.

KLEINIA GALPINI.

FOR some years after its introduction this South African succulent was grown under the name of *Senecio Galpini*, but in the "Kew Hand List" it is placed in the genus *Kleinia*. As a flowering plant it is superior to most of the *Kleinias*; indeed, it is well worthy of increased attention as an autumn and winter-blooming plant for the greenhouse. It has been grown at Kew for the last ten years or more, but for some reason or other it is rarely if ever met with elsewhere. Out of bloom it bears a considerable resemblance to an *Echeveria*.

It forms a partially succulent upright stem, clothed with fleshy glaucous leaves. The stem in time branches freely, and the flowers come from the apex of each shoot. They are composed of a closely-packed head of florets about 1½ inches across and of a bright orange colour. Plants from 1 foot to 18 inches high flower freely. Their propagation and culture are by no means difficult if it is borne in mind that the plant is succulent, on which account cuttings need but little water, and should be placed in a dry warm structure. The spring is the best season for taking the cuttings, and the plants so obtained will flower in the autumn or winter of the same year if shifted in pots from 4 inches to 5 inches in diameter and grown in a light and airy house. In the "The Dictionary of Gardening" it is referred to as *Senecio Galpini*, and the date of its introduction from the Transvaal is given as 1892. T.

ERICA GRACILIS AND ITS VARIETIES.

THOUGH collections of Heaths embracing a hundred or more species and varieties are not to be met with now as they were some years ago, yet a few kinds are still cultivated, probably in greater



ERICA GRACILIS NIVALIS.

numbers than ever before, for they are popular market plants. One of those extensively grown for this purpose is *Erica gracilis*, which forms a pretty, freely branched little specimen, bearing quantities of tiny rosy purple blossoms. Good plants generally meet with a ready sale, especially if the flowers are well coloured, for some cultivators seem to be able to impart a richer tint into them than others. Exposure tends to deepen the colour of the flower, hence the grower who leaves his out of doors as long as possible, and chances a certain amount of risk from early autumn frosts, is enabled, if his plants escape uninjured, to take flowers into the market of richest colour. Two forms of this Heath have been in cultivation for many years, one of them flowering in the autumn and early winter, and the other in the spring. Last year a new variety and a decided acquisition to autumn-flowering Heaths made its first appearance at the meeting of the Royal Horticultural Society on October 27, when an award of merit was given it. This, which bore the name of *Erica gracilis nivalis*, was shown by Messrs. Gregory and Evans of Sidcup, Kent, a firm noted for their successful culture of these greenhouse Heaths, and who have had this season a fine display of their

new variety. Its distinguishing feature is the colour of the blossoms, as they are almost pure white, and it is quite possible that the slight tinge of colour they now possess may give way under cultivation, for I believe the white variety of *Erica hyemalis* was not quite so pure when first seen as it is now. A very characteristic illustration of the new *Erica gracilis nivalis* is given herewith, the plant figured being a typical market specimen.

Besides the above the following Heaths all make their appearance in Covent Garden Market some time during the season: *Erica caffra*, a compact grower, with small white flowers in winter and early spring; *E. candidissima*, long spikes of tubular-shaped pure white flowers, late spring and early summer; *E. Cavendishi*, remarkable for its large golden flowers of a wax-like texture, at about the same season as the preceding; *E. hybrida*, red tubular flowers in spring, not so much grown for market now as it once was; *E. hyemalis*, probably grown in greater quantities than any other greenhouse Heath. It is in season throughout the winter. The variety *alba* is equally desirable with the type. It is somewhat strange that the early history of so popular a plant as *E. hyemalis* should be unknown, though it is generally considered to be a seedling from *E. linnaeana*. Other market Heaths are *E. melanthera*, with small mauve-coloured blossoms, and prominent blackish anthers, winter and early spring; *E. perspicua nana*, a twiggly little bush with pure white flowers in spring; *E. Spencersi*, pink and white tubular-shaped flowers, closely packed in dense spikes, spring; *E. ventricosa*, represented by several forms, is a summer Heath; and *E. wilmoreaana*, which comes in as a succession to *E. hyemalis*, and like that well-known kind its origin seems to be doubtful.

As illustrating the great changes that occur in the horticultural world, it may be mentioned that in the "Practical Gardener," by Charles McIntosh of Dalkeith, published in 1840, we read under the heading of "Greenhouse Plants": "*Erica* is a genus so popular it would be vain to make a selection. Where there is any attempt at collection there should not be less than from 200 to 300 species of this family." Anything approaching that number would be impossible to obtain at the present day, though I see in the catalogue of the one time prominent nursery firm of E. G. Henderson and Son of Wellington Road, St. John's Wood, for 1875 no less than 133 species and varieties are enumerated. The most recent "Hand List" of these plants at Kew contains eighty names. H. P.

CORRESPONDENCE.

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

A FRUIT GROWERS' UNION.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your leading article of the 3rd inst. giving an account of a new society formed for the mutual benefit and protection of the fruit growers in the Vale of Evesham interested me greatly. Much credit is due to the Evesham fruit growers for the public spirit shown by them in forming this combination, and everyone interested in fruit growing will wish them all possible success. The question of the disposal and the advantageous marketing of fruit, flowers, and vegetables lies deep at the bottom of the failure of the hardy fruit industry of England, and until this question is settled more to the grower's advantage so long must the industry remain in the deplorable and chaotic condition of unprofitableness it has always been in. We are never tired of boasting that the climate and soil of England is as suitable for the successful growth of fruit as any country in the world, and it is true, and yet growers cling to the obsolete system of disposing of their crops through the middle-man or an agent whom they possibly do not know and over whom they have no control. Frequently in congested markets—e.g., Covent Garden—where crops are often

dumped down in a glutted market and disposed of at ruinous prices to the grower, they barely pay the price of carriage. This is not to be wondered at when we reflect that the accommodation at Covent Garden is very little better or larger now than it was when first built years ago, when it dealt only with the home-grown produce of that day. It was then often in a congested condition; what must it be in now, with the fruit expansion which has taken place in the home trade, to say nothing of the immense and annually increasing foreign imports, most of which find their way to Covent Garden! The grower is perfectly helpless in the hands of his agents, whose charges are seldom less than 15 per cent., including market toll, commission, and other minor charges. Indeed, they are often much more. What makes the grower's position so helpless is that he has absolutely no control over the disposal of his produce. To the few large growers who have stalls of their own in the market it is different, as they can look after their own interests; but the majority are at the mercy of the state of the market.

So long as this state of things remains so long will the industry continue in a half-hearted, halting, and starving condition. It is clear that if all the growers would combine and form a union to dispose of their own produce to the public and to retail dealers in all large centres of population without the intervention of the middle-man that this industry would soon become one of the most prosperous in the land, to the great benefit of the grower and the public. To the former because the method would to a great extent prevent dumping in congested markets, and secure to them fair and remunerative prices, and to the public because they would receive their fruit and vegetables at first hand, clean, fresh, and in a more attractive condition, and, moreover, no doubt at less cost.

This question appeals to the owners of land even more forcibly than it does to the growers, as the fruit trees, generally speaking, are their property. So no great difficulty should be found in finding money to start a national society on the same lines as that formed at Evesham, having centres in all counties and large towns. Every industrial interest in these days has its union or society co-operating for benefit and protection, and until the fruit culture in England is similarly represented it will never reach its high water mark, and for this there is no one to blame but the growers and the owners of the land.

A FRUIT GROWER.

VIOLETS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I invested in a few plants of the new single Baroness de Rothschild this year, described as the largest of the giant Violets. I imagine it is a selection from La France, but I can see very little, if any, advance in size, and my plants are evidently not all true, as there is a quite inferior variety among them, although they were obtained from one of the best sources. John Raddenbury, although not a large flower, is a distinct novelty and takes my fancy very much. It reminds me of the wild Dog Violet, but with the advantage of fragrance. A little bunch of John Raddenbury makes as pretty a button-hole as one can wish for. *Après* of this, I wonder when the florists will learn how to make up a button-hole of Violets, and when people of otherwise good taste will refrain from purchasing and wearing the congested abortions which are to be bought at the shops. No more than eight to ten good flowers should be used for each bunch, and every flower should be properly seen.

The man who could introduce a good single white Violet would be a public benefactor, for at present we have nothing worth looking at. The blues have been advancing for years, but the white ones seem to have stood still. Imagine what a beautiful flower a white Violet of the size and shape of La France or Princess of Wales would be. Of the doubles I think Mrs. Astor is my favourite, although it may not be so useful to the market grower as Marie Louise. It is very

taking in colour, and the perfume is most pronounced and delicious. Comte de Brazza I have reluctantly had to give up; it is such a bad grower and shy in flowering. I should think that these are common complaints against it, for how rarely is it seen in good form, even in gardens where the very choicest flowers are to be obtained, and where, to the customer, price is no object. I should be very glad to know how to grow and flower this Violet well.

Rye.

F. H. C.

LATE PLANTING OF DAFFODILS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I should like to add my experience on Narcissus (page 308 of THE GARDEN, the 3rd inst.). I planted in the last week in January, 1902, Sir Watkin, Emperor, and Empress, which all gave a beautiful display, and the flowers were almost as fine as those from bulbs planted in November, but the advantage I found from this late planting was that the flowers were quite a fortnight later. The bulbs were kept in a very cool shed all the winter. This stopped them starting into growth. J. S.

BENTHAMIA FRAGIFERA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The question was recently asked in your columns if this tree would produce fruit without being grafted. I am therefore sending you some fruiting branches taken from a seedling tree, of which an illustration was published in THE GARDEN a few weeks since. Those trees are now (the 8th inst.) heavily laden with their beautiful berries. Birds, however, are very fond of them, so that it is very difficult to preserve them till they are perfectly coloured, especially after the severe weather we experienced at the end of November. I know of no shrub that grows and fruits so freely from seed as the *Benthamia*, equally beautiful with its blossoms in May, or laden with fruit in November and December. Almost any soil or situation suits it so long as it is not subjected to more than 8° or 10° of frost.

Trelissick, Truro.

WILLIAM SANGWIN.

INSECT PESTS AND DISEASES.

BLACK-LEG OR POTATO STEM-ROT.

DESCRIPTION.

ALTHOUGH known for some time on the Continent, this disease has not been prevalent in Great Britain. There is reason, however, to think that it is spreading in this country. It is very destructive, and the loss caused by it in Germany is frequently 10 to 15 per cent., and sometimes 75 per cent. of the entire crop.

The leading symptoms of the disease are as follows: The leaves wilt and turn yellow; then they become shrivelled from below upwards, and finally die. If the underground portion of the stem is examined when the leaves commence to droop, its surface will be found to be more or less covered with brownish stains. This discolouration gradually extends up the stem, which finally becomes black and rotten throughout. The number of plants affected in a Potato field varies very widely. Diseased plants may be found growing among perfectly healthy ones, but more frequently the disease spreads from one plant to another.

The disease is primarily caused by a bacterium called *Bacillus phytophthorus*, but as decay proceeds various kinds of fungi, e.g., moulds, &c., assist in the completion of the work. The disease spreads with greatest rapidity during hot, damp weather, and is most abundant during the months of June and July. The death of the haulms at this early period of the season, especially in the case of late varieties, means serious loss, not only on account of the scanty crop, but because the tubers also become infected by the bacteria that have been washed into the soil from the rotten haulms.

METHODS OF DEALING WITH THE DISEASE.

The following measures have been suggested by Dr. Otto Appel, who has studied the disease in Germany: (1) Potatoes, as well as Beans, Carrots, Turnips, Cucumbers, Vegetable Marrows, Sugar-beet, and Mangolds, which are also susceptible to the disease, should not be cultivated for two years on land where the disease has occurred. (It has been experimentally proved that cereals are not susceptible.)

(2) Potato "sets" should not be cut, but the tubers should be planted entire.

(3) Care should be taken to obtain seed from districts where the disease does not exist.

(4) Lime, or strong nitrogenous manures, especially nitrate of soda and sulphate of ammonia, should not be used.—*Board of Agriculture and Fisheries' Pamphlet.*

THE CANKER FUNGUS.

THERE is probably no disease to which fruit trees are subject the nature of which is so generally misunderstood, or any disease for which so many others are mistaken as that of canker. This want of knowledge among gardeners generally is not confined to this country, for even in scientific Germany the term *krebs* and in France the term *chancre* are used in the same loose way. Every kind of gaping wound in the bark, especially if there is a swelling round it, or even a swelling on the bark without any obvious fissure, is spoken of as canker, though such may be, and often are, due to cuts made in the bark by careless pruning, to damage by hailstones, improper or excessive pruning, badly drained or unsuitable soil, excess or deficiency of certain essential plant foods, and, most commonly of all, to hypertrophy, or excessive sap formation caused by the irritation of colonies of woolly aphis or American blight. The amateur may well give up and say that the assignment of the proper cause to these fissures and swellings is beyond him. But he may take heart, for, with a very little knowledge of the real canker fungus, he can easily identify it, and by a little timely aid prevent the ruin of some of his trees. Real canker—not the thing that looks like it—is caused by the growth of a fungus known as *Nectria ditissima*. The causes mentioned above, to which swellings and malformations are often due, are often also the cause of canker to this extent, that by the cracks and fissures they produce in the bark a suitable nest is afforded for the development of the spores of the fungus.

The nature of this fungus may be best understood by comparing it with mildew. Everyone who has examined mildew at all carefully will have seen that it consists of two parts, a network of delicate fibres ramifying in all directions, known as the mycelium, and rising from this a multitude of shoot-stems of infinite fineness bearing on their ends the familiar spore cases, which, when the mould is brushed or shaken, produce a cloud of dust—the spores. When a spore of the canker fungus is conveyed in any way to a suitable spot on or in the bark of an Apple tree—wounds or fissures of any sort mainly—it produces a mycelium which penetrates the rind and wood, and lives upon the juices of the tree. It grows very slowly, but after a time causes swellings or distortions of the bark, and later, when the mycelium has sufficiently permeated the tissues, the portion of the branch above the seat of infection dies. The growth of the fungus is accompanied by preparations for the propagation of itself, which take the form of the production of spore-bearing cases, on the surface of the rind of young branches, or more often, in the case of older branches, on the inner surface of the wood laid bare by the fissures. These perithecia are crimson in colour and are clearly visible to the naked eye, being usually disposed in groups. Sometimes a protuberance as large as a hen's egg may be seen with all the cracks on it literally filled with these crimson spore cases. Wherever the canker fungus has had time to develop these will be found, and thus furnish unmistakable evidence of its existence, and always enable us to distinguish it from the other diseases which are so often mistaken for it by those in ignorance of this simple diagnosis.

When we come to consider the methods of prevention and cure, the most obvious thing to do is carefully to examine all young trees purchased, or grafts obtained from neighbours. On young twigs the traces of the fungus, if present, are necessarily extremely minute, and any suspicious places should be closely examined with a pocket lens for signs of the crimson spore cases, it may be only one or two, in some minute crack. As the infestation is easily spread from tree to tree it is a good plan to cut out infected branches altogether and burn them, or if the whole tree is infected, to destroy it. Where this is not desirable, the affected parts should be cut clean off with a sharp knife and tar applied to keep out spores and give the wound a chance of healing up. This has sometimes been done successfully when a branch has been diseased nearly a third of the way through. Syringing infected trees is a great check to the spread of the fungus, though not a cure, as it would kill the spores and spore cases, but would leave the mycelium untouched. The spraying should be done two or three times during the winter, all the obviously infected spots being given an extra dose. A strong solution for this purpose can be made with 20lb. of sulphate of copper to 100 gallons of water. A solution little if any less effective is the caustic solution with which trees are sprayed in the winter to remove mosses lichens, &c. This is made by dissolving 1lb. of ground caustic soda and $\frac{3}{4}$ lb. of crude commercial potash in 10 gallons of water, to which is added $\frac{1}{2}$ lb. of soft soap to ensure a more thorough wetting of all parts.

This spraying, however, can never be more than a partial remedy, though it will do much to check the introduction of the fungus into orchards and prevent the spread of it from tree to tree. Still, for a complete cure, dependence must be placed upon the surgical methods, or even total extinction of trees badly infected. Trees should be always kept clear of lichens and mosses by the use of the caustic solution referred to above, while woolly aphids, which are not only injurious in themselves, but are the means of conveying the spores from tree to tree by their fleecy coverings, would be largely reduced by the same winter washing.

Some varieties of Apples are more liable to this disease than others, Ribston Pippin being notoriously subject to it, though, by grafting on the Paradise stock and frequently lifting it can be enabled to make a better stand against it. Lord Suffield, Cox's Orange Pippin, Golden Pippin, and varieties of Reinette are also specially subject to it, though not to such a degree as Ribston Pippin. Although the canker fungus has been spoken of as a disease of Apple trees only, it must not be understood that it is confined to them. It also affects Pear trees considerably in some places, and in a less degree Plum trees. On the Continent it is much more prevalent than in this country, being as common on Pears as on Apples.

ALGER PETTS.

SOCIETIES.

THE NATIONAL CHRYSANTHEMUM SOCIETY.

THE late exhibition of this society was held last week at the Crystal Palace. The following is a brief report:

Twenty-four Japanese blooms: First, Mr. J. Simon, gardener to W. W. Mann, Esq., Ravenswood, Bexley. Dorothy Pywell (white Japanese, with curling forets) was very good. Mr. W. Jinks, gardener to L. Drew, Esq., Knowle Green House, Staines, was first for twelve Japanese blooms; second, Mr. John Simon; third, Mr. C. Hanis, The Grove Gardens, Watford. Mr. G. Prudden-Clark, Hitchin, won the first prize for six Japanese blooms, distinct, Mr. C. Bellis, Fonthill Lodge Gardens, Forest Hill, being second. For twelve incurved blooms, in six varieties, Mr. John Simon was first with some good flowers of Frank Hammond and others. Mr. W. C. Pagram, The Whim Gardens, Weybridge, was first for six bunches of large-flowered single Chrysanthemums with a pretty display. The second prize was won by Mr. James Brookes, Totteridge Park Gardens, Herts. An extra prize was awarded to Mr. C. Brown, Abbott's Langley.

For six bunches of small-flowered singles Mr. W. C. Pagram was first. Mr. W. G. Prudden-Clark won the first prize for six Japanese blooms in four varieties, and he was also first for six bunches of any variety. The best vase of Chrysanthemums was shown by Mr. Clark.

The first prize for twelve vases of Japanese blooms in six varieties was taken by Mr. Charles Harris, The Grove Gardens, Watford. General Hutton and others were very good.

The best group of Chrysanthemums and other plants was set up by Mr. W. Howe, Park Hill Gardens, Streatham, Mr. Robert Foster, Nunhead, being second.

The first prize for a vase of Pompon Chrysanthemums was won by Mr. D. B. Crane, Highgate. Mr. Crane also showed the best basket of Chrysanthemums.

The first prize for a vase of Chrysanthemums, with foliage and Grasses, was won by Mr. H. Pestell, Elston. For six Japanese blooms, distinct, Mr. C. Haseelgrove, Sydenham Hill, was first.

Mr. Prudden-Clark was first for six bunches of Japanese, distinct. Mr. Charles Brown, Langley House Gardens, Abbott's Langley, being first for six bunches of decorative sorts with a charming lot. Mr. Crane won for six bunches of small-flowered Pompons. Mr. Charles Harris, The Grove Gardens, Watford, was first for a vase of Chrysanthemums and foliage with handsome blooms.

Mr. W. Howe, Park Hill Gardens, Streatham Common, S.W., won the first prize for a table of plants with a pretty lot. *Callicarpa purpurea* with its purple berries was very bright.

TRADE EXHIBITS.

Mr. David Ingamels, King's Grove, Maidenhead, showed Potatoes in all the most famous sorts (silver medal); Messrs. John Laing and Sons, Forest Hill, exhibited excellent hardy fruit (silver medal); Messrs. Gooden and Fletcher, 6, Ashley Road, Altrincham, had a charming exhibit of single Chrysanthemums (silver medal); Messrs. J. Cheal and Sons, Crawley, showed some richly-coloured Apples and some good dishes of Pears (silver medal); Messrs. H. Cannell and Sons, Swanley, made a brilliant display with Begonias, Celosias, and Pelargoniums, the latter very attractive (gold medal); Messrs. Ambrose and Son, Cheshunt, exhibited Tree Carnations, cut Roses, the new Black Grape Melton Constable, as well as pot plants of Cyclamen, Heaths, &c. Tubus for shrubs were sent by Messrs. Champion and Co., 115, City Road, E.C. Mr. Williams, Ealing, sent rural table decorations.

The Pattison Patent Lawn Boots were shown by Mr. H. Pattison, 1, Farm Avenue, Streatham.

On Monday evening last the executive committee of the above society held a meeting at Carr's Restaurant, Strand, when Mr. Thomas Bevan occupied the chair. In the absence of Mr. Richard Dean through illness, his place was taken by his son, who read the minutes of the previous meeting and the correspondence. A rough financial statement was submitted, showing income received to the amount of £736 odd, inclusive of the amount payable by the Crystal Palace Company towards the November show. A list of the medals awarded at the December show was then read and approved. A proposal was made to the effect that the duties of the classification committee be embodied in those of the floral committee, and it was resolved that it should go before the annual general meeting. On the motion of Mr. C. H. Curtis a sub-committee was appointed to consider the advisability of organising a conference upon early varieties at the October show in 1905. The gentlemen appointed were Messrs. D. B. Crane, C. H. Curtis, Hawes, Such, and Moorman.

Some discussion ensued upon the need for having an occasional meeting for the discussion of interesting and instructive topics relating to the Chrysanthemum, and a wish was expressed that the suggestion might take a more tangible form. Several new members were elected, and the meeting closed after a very busy evening.

NATIONAL ROSE SOCIETY.

ANNUAL MEETING.

THE twenty-eighth annual general meeting of this society was held on the 8th inst. at the Hotel Windsor, Victoria Street. There was a large attendance of members. Among those present were the Revs. F. Page Roberts, J. H. Pemberton, and R. Powley, Dr. Shackleton, Messrs. E. J. Holland, H. E. Molyneux, G. W. Cook, A. Tate, J. T. Strange, H. P. Landon, H. G. Mount, O. G. Orpen, Conway Jones, E. T. Cook, George Paul, George Gordon, W. J. Grant, C. E. Cant, B. Cant, Frank Cant, W. Marshall, A. E. Prince, W. D. Prior, J. Greo, R. Harkness, W. J. Jefferies, Lewis S. Pawle, Will Taylor, Arthur Turner, Charles B. Hayward (hon. treasurer), Edward Mawley (hon. secretary), and many others.

Mr. C. E. Shea, the newly-elected president of the society, was unanimously voted to the chair. The minutes of the last general meeting were taken as read. Messrs. O. G. Orpen and H. G. Mount were appointed scrutineers of the ballot.

Before proceeding to the business of the evening the chairman said he had a very pleasant duty to perform, namely, the presentation to Mr. Mawley of a small testimonial, a cheque for 159 guineas. They all felt that any gift could only slightly show their appreciation of his services. What they would have done without Mr. Mawley, Mr. Shea did not know. Mr. Mawley, in reply, said he did not know how to express his thanks for such a handsome gift. It had always been a great pleasure to work for the National Rose Society, and to receive this fresh token of their approval was extremely gratifying. Mr. Mawley, in again thanking the members, said he had been secretary of the National Rose Society for twenty-six years. The following address accompanied the gift. Two hundred signatures were appended.

"To E. Mawley, Esq., V.M.H., Hon. Secretary N.R.S.

"We, the undersigned, on behalf of the subscribing members of the National Rose Society, whose names and addresses are annexed, beg your acceptance of the accompanying cheque for 150 guineas as a mark of their appreciation of the most zealous and efficient service which you have for so many years voluntarily devoted to the interests of our great and rapidly increasing society.

"J. H. PEMBERTON.

"ALEX. DICKSON.

"HARCOURT P. LANDON."

Mr. Mawley then read the annual report, which will appear *in extenso* in our next number.

Some discussion took place as to where the provincial show should be held in 1905. Mr. Mawley said that for various reasons the authorities at Halifax, Birmingham, Edinburgh, and Sheffield were unable to receive them. Mr. Conway Jones brought an invitation from Gloucester, which was favourably received. Mr. George Gordon, however, thought that as the society were having two metropolitan shows and were giving extra prizes at the autumn exhibition, £25 to the new hall, and in other ways were spending more money, it would be best to forego a provincial show in 1905. He moved an amendment to that effect. It found no second, however, and therefore fell to the ground. Mr. Mawley gave facts and figures to show that the society was in such a condition financially as to venture upon a provincial show, and then reasonably hope to have a good balance. Eventually the Rev. J. H. Pemberton moved "That a provincial show shall be held at Gloucester in 1905." He suggested Tuesday, July 15, as the most suitable date, and this was finally accepted. Mr. Grant seconded the resolution, pointing out how easy it was for northerners to get to Gloucester. It was carried *nem. con.*

After Mr. C. B. Hayward (hon. treasurer) had read the financial statement, the chairman moved the adoption of this and the report. He referred to the loss of Dean Hole, and said it would be impossible adequately to fill his place. He also made sympathetic reference to the death of the Rev. A. Foster-Melliar. The financial state was unique in the society's history. Whereas the balance in 1902 was only some £14, it now stood at £318. In 1900 there were 534, now they were 1,300 members. He sympathised with Mr. Gordon's caution, but Mr. Mawley assured them it was possible to do all they wished and still have a substantial balance in hand. Mr. Shea said that members were not simply passing through, for the percentage of resignations in 1904 was considerably less than in 1903. With reference to their having to remove the July show from the Temple Gardens, he said that occupants of some of the chambers had complained of the noise, but the idea of a Rose show being a nuisance came to him as a surprise. The Botanical Gardens, where the 1905 show would be held, were said by some to be out of the way, but they were much more convenient for visitors from the east and north. There was scope for greater variety and improvement, and there would also be better catering. The refreshments at the last Temple Rose show were referred to as abominable. Mr. Shea pointed out that an increasing number of members provided material for a strong committee. Mr. Jefferies seconded this resolution, which was passed unanimously.

Mr. George Paul proposed that "The new rules and regulations of the society be adopted." This was seconded by the Rev. F. Page Roberts, and after discussion of some details, was passed unanimously. In reply to a question as to whether By-law 8, that blooms must be exhibited in boxes of regulation size, would be enforced, the chairman replied in the affirmative. The questioner was understood to imply that this bye-law was sometimes infringed. In reply to Mr. Conway Jones, Mr. Shea said that thirty-six blooms might be staged in two boxes of eighteen.

Mr. W. J. Grant proposed that "The thanks of the society be given to the officers and other members of the committee for their services during the year." Mr. E. J. Holland seconded this proposition, both speakers emphasising the value of the services of Mr. Hsward and Mr. Mawley. Mr. Holland also said hearty thanks were due to those committeemen who came from a distance. Carried unanimously. Mr. Mawley and Mr. Hayward expressed their thanks for the resolution and gratification that their work was appreciated. It was stated that there would probably be little difficulty in finding a place for a northern show in 1906.

In announcing the result of the ballot, Mr. Shea said he found himself elected president of the society. He said that it was so difficult that it became almost easy to succeed Dean Hole. It was so impossible to expect another president like him that criticism would be silent. He mentioned that now a president could not be elected for more than two years. He thanked them most sincerely for the honour. The newly-elected vice-presidents were Messrs. E. T. Cook, W. J. Grant, A. Tate, and Rev. F. Page Roberts. The committee members newly chosen were the Rev. H. A. Berners, Messrs. E. J. Holland, Courtenay Page, and A. H. Pearson. A vote of thanks to the chairman closed the proceedings.

THE DINNER.

At the unwelcome early hour of 5.30 the annual dinner was held after the meeting. Mr. Shea occupied the chair, and met with a gratifying reception. After the usual loyal toasts, the chairman proposed "The National Rose Society," which was responded to by Mr. Mawley. In the absence of Mr. George Buvard, V.M.H., the Rev. J. H. Pemberton proposed "The Horticultural Press," responded to by Mr. E. T. Cook; and Mr. Gordon proposed "The Chairman." A very pleasant evening was spent by the large number of members present. Mr. Mount of Canterbury kindly sent some beautiful Roses, and Messrs. Bunyard sent fruit. The Georgian Singers supplied the music.

THE BRITISH GARDENERS' ASSOCIATION.

A WELL attended meeting of the Caterham Gardeners' Society was held on Friday, the 2nd inst., to hear an address upon the "British Gardeners' Association," by Mr. R. Hooper Pearson. Mr. Pearson briefly sketched the history of the association, which was, he said, intended to be to the professional gardener what the various organisations which control other professions are to them. He quoted from articles which had appeared in the Press to support his contention that many men who had proved failures in other professions eventually drifted into that of gardening. These men were often glad to accept almost any wage that might be offered them, and this was, of course, unfair to the genuine professional gardener who had studied diligently at his calling since boyhood.

Such a condition of affairs could not exist in a properly organised profession, and it was in the power of gardeners to amend matters. Now that the British Gardeners

Association had been started, every gardener could do his share towards bringing about reform by at once becoming a member. The association would deal firmly with what were undoubtedly abuses, but it hoped generally to be able to conduct its operation in a conciliatory spirit, fully recognising that to effect permanent good the best interests of employers as well as employees must be looked after. Employers would, he felt sure, gladly welcome an organisation which would supply them with thoroughly experienced and reliable gardeners. These were the men who would be found to reduce the working expenses of the garden. Mr. Pearson then read the prospectus issued by the association.

In the discussion which followed some of the speakers stated that they had hitherto hesitated to join the association, the reason being that they had not clearly understood its programme, but that they would now become members, and a number of the audience gave in their names for this purpose.

NATIONAL POTATO SOCIETY.

FIRST ANNUAL GENERAL MEETING.

In the Agricultural Hall on the evening of Wednesday, the 7th inst., the first annual general meeting of the National Potato Society was held. Upwards of sixty persons were present. After the minutes relating to the inaugural meeting of the society had been read by the secretary, the chairman, Mr. A. D. Hall, explained that owing to the non-receipt of the results of one or two of the society's Potato trials, it had been found impossible to complete the report of the society's work in 1964. Mr. Walter P. Wright had, however, drawn up a summary of the report, and he called upon that gentleman to read the same to the meeting.

The outstanding features of the summarised report read by Mr. Wright were that the society's show at the Crystal Palace on October 11 and 12 was a great success, and returned a profit to the society; that an audit taken of the varieties then exhibited showed that 453 distinct sorts were staged, 270 of which, chiefly novelties, were shown once only; that the balance-sheet showed a profit on the year's work of £46 15s. 3d.; that an election among the members has been held with a view to providing interested persons with lists of standard varieties; and that the members joining the society up to November, 1964, totalled nearly 300 private members and 1,500 affiliated members, making a grand total of nearly 2,000 members. The report, which was unanimously adopted, extends to sixty-four pages, and will be issued very shortly.

Mr. A. D. Hall had much of moment to say about the Potato trials organised by the society, and his remarks were followed with deep interest. He thought that, despite the scoffers who said that trials would only show them what they already knew, a good deal of valuable information would be gathered from reports of the trials, and that the conclusions arrived at could not fail to be of benefit to farmers and small growers alike. He had gone carefully into the subject of the cost of trials, and found that it would be a heavy one. Each variety tested should, in his opinion, have two square rods of ground allotted to it, and as there were 453 varieties staged at the National Potato Society's show, and these would be supplemented by other new sorts, the society would require from five to six acres of land for testing purposes. The cost could be fairly put at £15 per acre, which was not allowing any payment for supervision, and would not be lessened materially by the sale of the produce.

After making the above remarks Mr. Hall vacated the chair to Mr. G. Gordon, under whose presidency the meeting proceeded to elect officers for the ensuing year. Practically the whole of the present officials were re-elected, the nominations of Sir Jobo Llewellyn as president, Mr. A. D. Hall as chairman, Mr. G. Gordon as vice-chairman, and Mr. Walter P. Wright as secretary and treasurer being received and carried with acclamation. A list of vice-presidents was established. With a view to extending the sphere of the society, Mr. Wright proposed the institution of district committees, each with a secretary and correspondent having seats on the executive committee. After a little discussion on a suggestion that officials who were unable to attend the society's meetings should vote by proxy (subsequently withdrawn) the motion was carried unanimously.

In order to assist the executive committee in their choice of a place for holding next year's exhibition, a test of the feeling of the general meeting was taken. This was in favour of London, with possibly another exhibition in the provinces. Edinburgh and Doncaster were next in favour. The voting for the various places was, London 13, Edinburgh 6, and Doncaster 6.

A suggestion was made by Mr. W. Davie that something should be done to avert the disastrous effects of lawsuits on the Potato industry. This matter was fully discussed, and as a result it was decided to issue with the annual report a list of Potato experts, being trade growers and members of the society, whose services could be sought as arbitrators.

NATIONAL SWEET PEA SOCIETY.

The annual general meeting of this society was held at the Hotel Windsor on Tuesday last, Mr. Whitpain Nutting being in the chair. The report states, among other things, that the society finds itself in a stronger position in every respect than in any previous season. Increased membership is recorded. It is decided to hold the 1965 exhibition in the Royal Horticultural Hall, Vincent Square, on July 4. The Royal Horticultural Society will give £10 towards the fund, and will provide a supply of tickets to members. The financial condition of the society is better than ever. The balance in hand is £20 5s. 1d. This is less by £9 2s. than the balance last year at this time, but against this must be set the cost of vases, £9 17s. 6d., and staging, £7 15s., so really the society is better off by £8 10s. 7d. than it was a year ago. In 1963 the subscriptions amounted to £73 3s. 6d., and in 1964 to £92 10s. 6d.

Some discussion took place as to the maximum number of square feet of tabling to be allotted to non-competitive

exhibits at the annual show. It was resolved to suggest to the executive committee that this should be 100. Some dissatisfaction appears to have been caused because some exhibitors were allotted much more space than others.

The adoption of the report and financial statement was seconded by Mr. H. J. Jones, and carried without a dissentient.

Mr. Percy Waterer was elected president for the coming year, and it was resolved to send a letter to Mr. Henry Eckford thanking him for having accepted the presidency for 1964. Mr. N. N. Sherwood was re-elected treasurer, Mr. C. W. Bredmore was chosen chairman of the committee, and Mr. H. J. Wright re-elected honorary secretary. A vote of thanks was passed to Mr. Edward Sherwood for having performed the duties of treasurer during the absence of Mr. N. N. Sherwood. The election of members of committee, and votes of thanks to the officers and chairman closed the proceedings.

LIVERPOOL HORTICULTURAL ASSOCIATION.

A MEETING of members was held at the office on the 3rd inst., Mr. T. Foster presiding. The subject for consideration was "Up-to-date Manuring" by Mr. F. W. E. Shrivell, F.L.S., being the result of the trials at the experimental grounds at Tonbridge Green, Kent. The lecturer gave an interesting account of the work of Dr. Dyer and himself for the past ten years. At the conclusion of the lecture supplementary information was given in reply to questions, after which a hearty vote of thanks was accorded to the lecturer. A similar compliment to the chairman terminated the proceedings.

CROYDON IMPROVEMENT SOCIETY.

ON Tuesday, the 6th inst., this society heard from Mr. G. Dray, Sydenham, S.E., a well-delivered lecture on "The United Horticultural Benefit and Provident Society," a society formed some forty years ago to render assistance to gardeners, whether in private, nursery or market gardens, or in seed warehouses. In opening the subject he appealed to the younger members to help forward the cause. He urged them to join. The subject was fully gone into by the lecturer, and great interest was displayed in the lecturer's remarks. At the conclusion a very hearty vote of thanks was accorded Mr. Dray for so kindly bringing the matter forward.

ROYAL HORTICULTURAL SOCIETY.

The meeting on Tuesday last was small but very interesting. The Colonial display formed the chief feature.

EXHIBITION OF COLONIAL FRUIT, &c.

The Royal Horticultural Hall was filled with exhibits of Colonial-grown fruits and of preserved and bottled fruits and jams on the 13th and 14th inst., at the first show of the kind ever held. The idea of holding a show of Colonial fruits has been before the council of the society for at least eighteen years, and now that its new exhibition hall has been opened the intention has become an accomplished fact, and the result has justified all expectations. It is, moreover, a happy augury for the future success of these shows when we recall the fact that the jubilee of our own Colonial Office as well as the centenary of the Royal Horticultural Society both occur this year. It is certainly regrettable that the Fellows and well-wishers of the society have not yet provided the full cost of the hall, which has been built as a permanent memorial of the centenary, and which will do so much in helping forward the future progress of horticulture in Great Britain and her Colonies. Till it is paid the Council will be hampered by a debt of £14,000, and the projected horticultural research station and the further development of the gardens must necessarily be kept in suspense. The invited guests at the private view last Monday included many well-known horticulturists, prominent Colonials now in England, the high officials of the Colonial, Indian, and Crown Agents' Offices, all the Agents-General of the Colonies, the principal representatives of the West India Committee, and others.

The schedule was divided into fifteen classes, ten of which were assigned to Colonial fresh fruit and vegetables, and the remaining five were allocated to preserved fruits, jams, &c. The first class was for a general collection of Colonial-grown fruit. There were also collections of Colonial-grown Apples (both cooking and eating) and Pears. Classes were also provided for Pine-apples, Bananas, Mangoes, Grapes, and other Colonial-grown fruits. There was also a class for Yams, Sweet Potatoes, and other Colonial vegetables. In the second division three open classes were provided for preserved and bottled fruits, including jams of home, Colonial, and foreign origin. Two classes were also allotted to British-grown fruits, bottled by the exhibitors entirely for their own household consumption. The judges appointed by the council included Messrs. G. F. Butt, Michael Garcia, George Munro, and A. M. Walker, who are all commercially interested in Colonial fruits; Mr. A. E. Aspinall and Mr. Hedger Wallace, who are well acquainted with the Colonies and their fruits; Miss Bradley and Miss Crooke (of Studley Castle), and Messrs. G. Bnyard, J. Hudson, W. Marshall, and A. Pearson, and the Rev. W. Wilks (secretary of the society). The Colonies officially represented were Canada, British Columbia, Nova Scotia, and the West Indies. Further interesting exhibits of Colonial fruits and products were entered by the Royal Mail Steam Packet Company, Messrs. J. Philip and Co., and the Dominica Agricultural Society.

The West Indian section, which had been organised by the West India committee, included official exhibits from Barbados and Dominica. The Royal Mail Steam Packet Company showed fruit carried by their steamers from Trinidad, Jamaica, and Barbados; Mr. Aston W. Gardner had an exhibit of Jamaica Oranges and Grape fruit; Messrs. L. Rose and Co., Limited, showed fresh Limes and Lime Juice; Messrs. James Philip and Co., displayed various West Indian

fruits, preserves, and pickles. Full particulars regarding the Islands, from the point of view of prospective settlers and intending visitors, may be obtained from the West India Committee, 15, Seething Lane, London, E.C. Gold medal.

The Barbados exhibit, sent by the Barbados Government through the Imperial Department of Agriculture, comprised Yams, Sweet Potatoes, and Barbados Bananas.

The Dominica exhibit was a representative display collected by the Dominica Agricultural Society at the Botanic Station, Dominica. Included were Lime Juice, Lime (Oil), Oil of Limes, Bitter Orange Oil, distilled Lime Oil, Shadocks, Grape Fruit, Sweet Oranges and Limes, Sweet Oranges, Bitter Oranges, Citrons, Mexican Melons, Mangosteen, &c.

The Royal Mail Steam Packet Company's exhibit comprised fruits of remarkable variety, collected in Trinidad, Jamaica, and Barbados. Among them were Shadocks, Oranges, Bananas, Grape Fruits, Cashew Nuts, Guavas, Ground Nuts, Golden Apples, Grew-grees, Gu-grus, Avocado Pears, Tangerines, Mandarines, Mame Apples, Granadillas, Pater Nuts, &c. The vegetables included Papaws, Yams, Sweet Potatoes, Cassava, Chous-chous, Tannias, &c. Silver-gilt Knightian medal.

Messrs. Ashton W. Gardner and Co., through the Jamaica Agency, 28, St. Bride Street, London, E.C., sent Jamaica Naval Seedless Oranges and Jamaica Grape Fruit.

Messrs. James Philip and Co., 4, Fenchurch Buildings, London, E.C., exhibited all kinds of West Indian produce, pickles, preserves, &c., such as jams, Sweet Potatoes (pink or white), Limes, Shadocks, Grape Fruits, preserved Guavas (jelly, marmalade, Dulce and cheese), Pineapple jam, Mangoes, &c. Silver-gilt Knightian medal.

Messrs. L. Rose and Co.'s exhibit comprised a general display of Limes from the Bath estate, together with bottles of Rose's Lime Juice, Lime Juice Cordial, and Limetta Ginger Cordial, the latter being a new winter drink recently introduced.

A very interesting collection of drawings of Jamaica fruits and models of Tasmanian fruits was lent from the Imperial Institute, by permission of the Director.

The Agent-General for British Columbia was awarded a gold medal for a splendid display of Apples from that Colony. It was a similar exhibit to that made a few weeks ago. The fruits were remarkable for their size and rich colouring.

The Agents-General for Nova Scotia and Canada respectively were awarded silver-gilt Knightian medals for exhibits of Apples. Those from Nova Scotia seemed to us to be fresher and generally better fruits, though both were excellent. The colour, more particularly than the size, of some was so rich as to make familiar sorts unrecognisable.

Messrs. Fowler, Lee and Co., Maidstone, were awarded a silver-gilt Knightian medal for a collection of bottled fruits.

The first prize for eighteen bottles of bottled British-grown fruit was won by Mrs. Banks, care of Mrs. Markham, Haaland Hall, Chesterfield; second, Mrs. E. Beckett, Aldenham; third, C. O. Walter, Esq., Ickleton House, Wantage.

For twelve bottles of bottled British-grown fruit, Mrs. W. H. Plowman, Beddington Corner, Mitcham, was first; second, Mrs. H. V. Thompson, 19, Putman Square, W.; third, Mr. H. Bates, Robertsbridge.

The exhibits of bottled fruits, jams, and jellies, from the Lady Warwick Hotel, Studley Castle, Warwickshire; Sir Walter Gilbey, Bart., Eisenham, Essex (who also showed Lavender water made on his Essex estate), were given the silver-gilt Knightian medal. Messrs. E. and T. Piek, Staple Street, S.E., were awarded a silver Knightian medal for jams.

The Horticultural College, Swanley, showed bottled fruits and vegetables in variety, as well as jams and jellies, all made at the college. Mr. T. C. Shore, Snorthearth, Farnham, Surrey, exhibited home-made jams. Messrs. Yeatman and Co., Limited, Denmark Street, S.E., showed jams, jellies, &c. Fresh bottled fruits were sent by the Bryden Horticultural Society, Monmouth.

ORCHID COMMITTEE.

Sir William Clayton, Bart., Marlow, Bucks, exhibited a group of *Calanthe vestita* Veitchii and also-oculata, that made a bright display. Silver Banksian medal.

Messrs. Stanley Ashton and Co., Southgate, N., showed *Cattleya Loddigesii*, C. L. var. *striata*, C. L. var. *gigantea*, C. L. var. *atrovioacea*, and C. L. var. *alba*. *Laelia purpurata*, var. *unicolor* and various *Cypripedium* were also included in the group. Vote of thanks.

Trichopilia suavis, shown by Messrs. Charlesworth and Co., Heaton, Bradford, made a pretty display. Some thirty plants, all in fine bloom, were shown, making a very attractive group. A good deal of variety in the lip markings was noticeable, some of them being very beautiful. *Laelia-Cattleya Charlesworthii*, with orange-red flowers, and various other hybrid *Cattleya*s were shown by Messrs. Charlesworth. Silver-gilt Flora medal.

NEW ORCHIDS.

Cypripedium × *Don Carlos*.—This is the result of a cross between *C. Godefroyae* leucocolum and *lawrenceanum*. It is intermediate in shape, the dorsal sepal being marked with dark crimson upon a light ground, tinged with richer crimson. The petals are spotted with deep crimson upon a light green ground, and the pouch is cream-coloured, streaked with crimson. From Norman C. Cookson, Esq. Award of merit.

Cypripedium tracyanum.—*C. arenum* and *leanum giganteum* were the parents of this Orchid, which has a large dorsal sepal that curves at the top and narrows considerably at the base. It is green and brown, with a broad white margin; a very distinct form. From Mr. H. A. Tracy, Twickenham. Award of merit.

Cypripedium lambianum.—This is an attractive hybrid, with light green petals and sepals tinged with brown, while the dorsal sepal, which hangs over the flower so that the apex is in a direct line with the base of the somewhat protruding lip, is white except for a patch of green at the base. From E. Ashworth, Esq., Harefield Hall, Wilmslow. Award of merit.



THE GARDEN

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THOUGHTS ON CHRISTMAS DECORATION.

ONCE more Christmas is with us. Once more the forces of labour and commerce throughout the world are more or less relaxed, and the hurly-burly of life gives place to a spirit of rest, joy, and thankfulness. Christmas brings a welcome pause in the strife, a resting milestone on the road of life—milestones, alas! which seem to meet one at much shorter intervals than used to be the case. It is a time for the happy reunion of friends long separated. No labour is counted too great in our efforts at making homes and churches assume a bright and welcome presence. Many and various products are brought into requisition, but, after all, no source of supply can approach in usefulness and beauty that which the garden supplies. A pleasant change in the manner of carrying out this work has taken place of late years. Once it used to be the common practice to depute this work to others, who, if not artistically clever, often produced depressing effects by using too much material. Now this is all changed; the work, if not practically carried out by the members of the households and churches, is executed to their instruction and under their personal supervision, with the result that really pretty and artistic decorations are now the rule and not the exception.

It is our purpose here only to point out a few rules and principles to be observed in carrying out the work. The first thing of importance to settle, especially in the matter of church decoration, is to divide the work into sections, and to appoint a responsible head over each section with others to help. In this way a mild rivalry is established, generally ending in much better work being done all round. Another rule is never to overweight the decorations by using too much material. This is a common mistake, heavy decorations are always a failure and dispiriting. Brightness and distinctiveness are essential points. When you use any colour, whether red, white, yellow, or green, it must assert itself in the arrangement and not be spoilt by the mixing of the colours indiscriminately. For instance, if dealing with the pulpit the columns dividing the panels should be treated with one subject, namely, a flat, neat wreath, nearly the width of the column. This should be formed of a small leaved evergreen. Each column must have

only one colour, but the colour may be varied in each column. The mouldings above and below the pulpit should be treated similarly. Around the base of the pulpit and the stairs there should be groups of Palms and flowering plants in pots, chiefly white, the panels of the pulpit being reserved for the artist's choicest work and rarest flowers. We should like to suggest an artistic treatment of the altar and chancel, the lectern, font, windows, pillars, and gallery, but space forbids, and we hope enough has been said to excite interest in the work, and to indicate a few of the lines on which it should proceed. As regards home decoration this is of a simpler character, varying according to means and opportunities. It may range from elaborate floral work to that of the bunch of Mistletoe and Holly in the lowly cottage.

“THE GARDEN.”

IT has come to our knowledge that some uneasiness is felt and is freely expressed with regard to the promised issue of THE GARDEN at the price of One Penny. “Don't see how it can be done for the money” is the general wording of the feeling. Such a remark is quite to be expected, as well as the accompanying surmise that in some way or other the paper will be of less value.

It remains for those who own and conduct THE GARDEN to show the horticultural public how the value can be kept up although the price is reduced. The published prospectus has already stated that the tone and character of the paper will be absolutely maintained, while it is confidently expected that its utility will be increased.

THE GARDEN has made for itself a special place in horticultural journalism. It has, from the first, been the foremost exponent of beautiful gardening, and of the just appreciation and right use of the best flowers, shrubs, and trees, while the scientific side and details of practical working have had their due space. It is largely owing to its influence that the knowledge of the better and more intelligent ways of gardening, now so generally practised, or at least attempted, has been placed within the reach of those wishing to learn.

The paper then, having these sound and excellent traditions, it must be clear to all that no sensible management could possibly contemplate any change that could tend to lessen its influence or in any way lower its character. The intention is that its character shall be fully maintained, and its fine traditions

preserved, while its general usefulness will be increased by the lessened price, putting it within the reach of the whole horticultural public.

Letters of congratulation are being received daily from well-wishers of THE GARDEN, and the following have been selected as examples:

“May I be allowed as an old subscriber of your paper, and as one who has received great courtesy from its managers, to congratulate you on the forthcoming change in price of THE GARDEN, which I sincerely hope may double its number of subscribers within the first quarter. The paper has always been one if not the most interesting and useful gardening weeklies which has been published.—CHAS. WM. CROSBY, *Broome Hurst, Dorking.*”

“It is delightful to be able to get THE GARDEN now for a penny. I shall subscribe for two copies instead of one. I have always of late years given my gardener my copies bound, but parted with them rather regretfully. Now I shall have a double set of volumes. I shall tell all my friends, some of whom I know would have liked to take in THE GARDEN, only would not go to the former price.—M. SIMONDS, *Audleys Wood, Basingstoke.*”

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.

CARNATION SIMPLICITY.

Mr. H. Elliott, Courtbushes Nursery, Hurstpierpoint, writes: “I am sending you a novel Christmas bouquet, consisting of a few blooms of my new single winter-flowering Carnation to be known as Elliott's Simplicity. I have been working for a good form of single Carnations for five or six years, and I believe I have in this succeeded in producing a good thing. It is not exactly a market sort, being too fragile to bear journeys by rail or post, and I have some doubts about this reaching you in good condition. As they are now before me the colour is a soft clear pink, the flowers 3 inches in diameter, perfectly regular, flat, with the edges, which are fringed,

slightly turned up or incurved, on very strong, erect stem, 2 feet to 3 feet high. The plant is very vigorous, and the blooms, which are slightly Clove-scented, are freely produced during the whole winter. As the plant is so strong, it is very easily grown, treated in the same way as the ordinary winter-flowering tree sorts. The plants are grown in pots out of doors during summer and taken into the greenhouse in winter, or planted out in the open ground in April and potted up in August. For the decoration of rooms in vases, for the dinner-table, and many other purposes cut, or for the conservatory or greenhouse as plants, this variety will be acceptable."

[We think the variety sent a very good one. It is single, but the petals are broad, and the colour is very soft pink, while there is a delicate fragrance.—Ed.]

APPLES FROM BRITISH COLUMBIA.

At the direction of the Agent-General for British Columbia I am sending you a few specimens of Apples grown in that province of Canada. These formed part of an exhibit made by the Government of British Columbia, which was awarded the Royal Horticultural Society's gold medal at their show of Colonial fruit held on the 12th, 13th, and 14th inst.

It might be pointed out that this is the second time during the present year which this distinction has been conferred on the Province.—J. A. TURNER, Secretary.

[The Apples sent were very richly coloured, and their condition gave evidence that they had been most carefully packed for their journey of some 6,000 miles by land and sea. The flavour of most was excellent.—Ed.]

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 2, 1905.—Meeting of the Mansfield Horticultural Society

January 3.—Royal Horticultural Society's meeting; meetings of the Redhill, Reigate and District, and the Sevenoaks Gardening Societies.

January 11.—Sheffield Chrysanthemum Society's meeting.

January 14.—Annual Dinner of the French Horticultural Society of London at the Café Royal, M. Philippe de Vilmorin in the chair.

January 17.—Meetings of Reigate and Sevenoaks Gardening Societies.

January 19.—Annual meeting and Election of Pensioners of the Gardeners' Royal Benevolent Institution.

January 24.—Royal Horticultural Society's meeting.

New Fellows of the Linnæan Society.—We are very pleased to hear that Miss Willmott has been elected an Honorary Fellow of the Linnæan Society, the first lady we believe to be enrolled a member of this institution. All good garden lovers will rejoice that one who has done so much to promote a love for flowers and horticulture generally has received so marked a distinction. Mr. Tatcher, assistant superintendent of the Hong Kong Botanic Gardens, was also elected a Fellow. His unobtrusive botanical work well merits the honour.

Fruit for sick children.—The Hospital for Sick Children, Great Ormond Street, has received a handsome gift of fruit from the Dominica Agricultural Society. This fruit was offered to the King for his acceptance for the London Hospitals, and at his suggestion it was sent to the above hospital. Amongst the fruit were some eleven crates of Bananas, many boxes of Limes, Navel Oranges, Grape Fruit, Citrons, and Apples. The last-named were grown by Lord Aberdeen on his ranch at Vernon, British Columbia, and exhibited by the Agent-General of British Columbia at the Royal Horticultural show which closed on the 14th inst.

Royal Botanic Society of London. Messrs. Dobbie and Co., Rothesay, have been awarded a gold medal for a collection of early-flowering Chrysanthemums grown for trial in the society's gardens at Regent's Park.

Solanum Wendlandii in Portugal. In the last issued Bulletin of the National Horticultural Society of Portugal there is an illustration of a splendid specimen of *Solanum Wendlandii*, from a photograph of a plant that appears to be quite 8 feet high. It is in full flower out of doors in a school garden.

The precocious *Leucojum æstivum*.—It is interesting to read Mr. S. W. Fitzherbert's report of the still earlier flowering of his precocious *Leucojum æstivum*, and I may be allowed to supplement his interesting note by saying that Mr. Fitzherbert's precocious form, which he kindly sent me at the time I had the pleasure of giving him a few bulbs of mine, is not the earliest with me, and practically flowers at the same time as several other clumps of *L. æstivum* received from various sources. On the other hand, my earliest form is not any earlier than others with Mr. Fitzherbert, so that one has no idea of what is the cause of this erratic conduct. Perhaps some of the many readers of THE GARDEN who grow the summer Snowflake will tell us their experience of the plants in their gardens? I have some six or seven different lots, including one collected on the Bithynian Olympus.—S. ARNOTT, *Carsethorn, by Dumfries, Scotland.*

The flowering of Snowdrops.—The first Snowdrop of the season opened here on December 15, and is one of a lot of *Galanthus Elwesii* received from Asia Minor in 1902. It has anticipated such Snowdrops as *G. Rachelæ*, *G. Elsæ*, and even *G. octobrensis*. I am aware that there are some places in Scotland where Snowdrops come earlier than this, but there are few others where such "autumnal" Snowdrops as those named are cultivated, and the point is worth noting for comparison. My experience is that the flowering of Snowdrops depends much upon the rainfall of the preceding autumn. This one the rainfall was later and not so heavy, and Snowdrops are later than in some years. One finds, however, that the "autumnal" Snowdrops, such as *octobrensis*, *Elsæ*, *Rachelæ*, and others, have a tendency to draw nearer to the flowering period of the ordinary Snowdrops as they become settled in one's garden, and it looks as if it would not be long before they adopted the normal blooming-time of the common Snowdrop. Some of my correspondents have experienced the same thing, but some further information from others would be welcome and useful.—S. ARNOTT, *Carsethorn, by Dumfries, Scotland.*

Obituary—Mr. Robert Bryson.—There died on Thursday, the 15th inst., Mr. Robert Bryson, High Street, Newburgh, Fife, who was for a number of years a very successful exhibitor at many of the local flower shows, and who was a gardener of great ability. For many years he was in the employment of Mr. William Guild of Parkhill as head gardener, and did very creditable work in that capacity. Mr. Bryson was eighty-eight years of age.

Violet Comte de Brazza.—I notice on page 418 in THE GARDEN of the 17th inst. that "F. H. C." mentions his inability to grow and flower the above Violet well. He says it is such a bad grower and shy flowerer. With me it grows very well indeed, and also flowers well; of course, not so profusely as the blue sorts, such as *Marie Louise*, *Lady Hume Campbell*, and others, but still it flowers well enough to give entire satisfaction, and I think it is the best of the double whites. No doubt the success of growing Violets much depends upon attending to trifles which some growers regard as of small importance. A few details on cultivation may be worthy of a note. In April I always split my Violets to one crown, then plant them on a well-manured and deeply dug rich border, partially shaded, facing east, keeping the runners cut off during summer, and watering overhead should they require it. Owing to partial shade the plants will be found to grow luxuriantly when they have got hold of the soil.

In lifting the plants again in the early part of September to place in their winter quarters, retain as much soil on the plants as possible. (I never reduce the ball when lifting.) Take care that the soil for planting in is not very rich. This I find of the greatest importance to get an abundance of flower. The planting in frames in too rich soil is no doubt the cause of failure with Violets. Give plenty of air, not too much water at the roots, and remove any damp leaves that may occur. Avoid manure in any form. As the strength of the crowns are built up in summer, too rich soil at this period only produces leaf growth in excess. If "F. H. C." gives *Comte de Brazza* one more trial under the above conditions I think he will meet with success. I may add that I have been picking a splendid lot of Violets since September, and at the present time I have a good supply and of good size, grown precisely under the above treatment, and I have never had Violets fail with me under such conditions. I never use any covering whatever for Violets in frames other than the lights, and find it is quite unnecessary to do so.—J. HIGGINS, *Rdg Gardens, Corwen.*

Rondeletia speciosa major.—Though at one time very popular for growing into specimen plants this *Rondeletia* is not often met with nowadays, yet it is not only pretty when in flower, but the neat bright rounded clusters are very useful in a cut state for buttonholes and for similar purposes. When needed for cutting from a very good plan is to train up a plant against the back wall of a stove if not too much shaded, or in some similar position, as in this way a specimen can, apart from its usual season of blooming, be depended upon for a few flowers almost throughout the year. For treating in this way it will do better in a prepared border than in pots, but the matter must be so arranged that the plant does not get unlimited room. Cuttings are not at all difficult to root, while its cultural requirements are in no way exacting. This *Rondeletia*, which is a native of Mexico, was introduced into this country in 1836. Though the name is thoroughly fixed in gardens, *R. speciosa* is in the "Kew Hand List" referred to as *R. odorata*. While alluded to above as a stove plant, such treatment is by no means necessary to its well doing, as it is equally at home in a structure where an intermediate temperature is maintained, which just suits, among other plants, the different *Aphelandras*, most of the *Eranthemums*, *Ruellias*, and numerous other beautiful flowering subjects. The Mexican house at Kew well serves to show the great number of distinct plants that can be grown under these conditions.—H. P.

Destroying wild flowers.—The Devonshire County Council decided recently to stop the wholesale stripping of wayside banks and hedges and other public places in order to supply wild plants and flowers for Covent Garden Market. Tons of Ferns, Primroses, Daffodils, and other plants are gathered and despatched to London in spring and summer, and the County Council has now passed a bye-law to prohibit this destruction. Persons offending in future will be liable to a penalty of £5 or a month's imprisonment. Special exception is made in the case of persons gathering flowers for pleasure or for the purpose of botanical study.

The most useful Chrysanthemums. It is generally admitted that if you want to find out the best (or, at any rate, the most popular, and therefore one may, I think, safely say the most useful) varieties of any flower, fruit, or vegetable, the wisest plan is to learn from the man who grows for market. Those who are interested in Chrysanthemums may be glad to know which varieties, according to the judgment of Covent Garden experts, are the best for market culture. The National Chrysanthemum Society held an exhibition in London last week of market-grown flowers. There was no doubt about their genuineness, for many leading trade growers were among the exhibitors, and it was stated that after the show all the flowers that were good enough would be taken to Covent Garden Market for sale there the next morning. The most popular variety in the show, to form an opinion from the number of times it was included in the exhibits, was *Tuxedo*. It

belongs to that class whose colouring is usually designated as bronzy yellow, and perhaps that is as near as one can get in a general way, for there is such a charming blend of shades of varying strength among them that is almost impossible to describe. In attempting to give the colour of Tuxedo, I should add that the bronzy yellow is largely tinged with rose, resulting in a very beautiful tint. In the classes for the best market varieties of certain colours Tuxedo won the first and also the second prize as the best bronze-coloured Chrysanthemum. The best white the judges considered to be Mlle. Therese Pankoucke. Framfield Pink, synonymous with Mme. Felix Perrin, gained the first prize among the pinks. The judges thought Violet Lady Beaumont the finest crimson, while one called Reiman was decided to be the best yellow. It would hardly seem necessary to add any further recommendation to the decision of the judges, but I might say that these flowers appear to possess the qualification that is essential to all cut flowers for home decoration, that is, the petals are of good substance and will last well. The colours, too, are clear and decided, which is also an advantage.—Y. Z.

The Maidenhair Tree.—There have recently been several notes in THE GARDEN about this most beautiful tree, and one is led to ask the question whether it is increasing in English gardens. One so rarely sees any young trees planted that there is, I think, some justification for enquiring whether planters are taking steps to ensure its preservation; for if young trees are not planted sooner or later it will disappear from cultivation. It is strange that it has not become a popular tree; perhaps its slow growth and, I believe, difficult propagation have a good deal to do with this. I know of no deciduous tree that has a more graceful appearance when in full leaf, each Maidenhair Fern-like leaf pointing towards the ground in a large specimen conveys the impression almost of a weeping tree. It is so absolutely distinct in appearance from all our other deciduous garden trees, and quite unique in its rich green leafy covering that seems to clothe the branches in so graceful and attractive a manner. Just as one might compare the clothes of a prince with those of a peasant, so it always strikes me you might truthfully and to its advantage compare the green, gracefully hanging, leafy cloak of the Maidenhair Tree with the loose, badly-fitting foliage of any of its commoner neighbours. There is a subtle charm, a distinct fascination, a dignity about this tree that can trace its descent to far remote geological ages. As the Beech is, perhaps, the finest of our British trees, because of the combination of strength and gracefulness in its giant limbs and slender twigs, so, to my mind, the Maidenhair Tree is even more attractive, because these two qualities are more effectively associated. In its autumn colouring it, too, has a beauty all its own; perhaps it is at its very best when some of the leaves have fallen, when the shape of the individual leaf can be seen, and the pale yellow foliage shows in contrast against the dark branches. In winter its distinctiveness is still preserved in the characteristic divided limbs, erect branches, and horizontal shoots. Can anyone tell me the best stock upon which to graft this tree?—Y. Z.

New Potatoes for Christmas.—Two interesting exhibitions of these winter delicacies have been recently shown at the Royal Horticultural Society's meetings at the new hall, Vincent Square. The first showed the result of saving the old seed tubers of last spring, storing them in cool positions, and rubbing off the growths as they appear during the summer, in order to prevent the tuber from softening and exhausting itself in the production of shoots. The tubers exhibited were told were placed on the soil (not planted or covered with soil) in an ordinary garden frame on the 17th October last, and the tubers so placed and the crop attached in the shape of numerous young Potatoes of all sizes, from the size of Peas to pigeons' eggs, were shown on the 29th ult. We think had they been allowed a longer time to develop they would have been larger, and therefore the crop more valuable, as there was a large percentage of small useless ones. It does not make

any appreciable difference whether the sets are late, mid-season, or early sorts, but what is important evidently is that the variety must be one that produces a cluster of Potatoes around the main stem, such as was the case in the best sample shown in the exhibit in question; the variety was Windsor Castle. With this collection was a sample of the young Potatoes in a cooked state, and although these were cold the flavour and quality were excellent. This is not a new method of producing new Potatoes in winter, I used to practise the same system thirty or more years ago. But instead of putting the sets in a garden frame, as in this instance, we used to place them resting on some leaf-soil in shallow boxes, putting the boxes containing them on shelves in any convenient place in the fruit or seed rooms. There it was comparatively dark, with a temperature of from 50° to 55°. The singular and almost uncanny part of the method is that no semblance of leaf-growth takes place. At the last exhibition of the Royal Horticultural Society, on the 13th inst., another dish of new Potatoes of excellent quality was shown. These were grown under more normal conditions, namely, from sets of early Potatoes grown in frames and taken up early last spring. Those wishing to possess new Potatoes at Christmas, 1905, may easily have their wishes gratified by planting an approved early sort in pots or frames (possessing the minimum of heat required, from 50° to 55°) next January. These should be ready to take up at the end of April or early in May. It is from these early Potatoes that sets for the Christmas crop must be saved.—O. T. E.

French Horticultural Society of London.—The date of the annual banquet of the above society has been fixed for January 14, and M. Philippe de Vilmorin will occupy the chair on that occasion. The secretary, Mr. G. Schneider, is most anxious to make this a record banquet, and to show the chairman, who comes purposely from Paris, that the society is much appreciated, and has many friends and supporters here. The dinner will take place at the Café Royal, 68, Regent Street.

Gardeners' Royal Benevolent Institution.—The Duke of Westminster will preside at the sixty-sixth anniversary festival dinner of the Gardeners' Royal Benevolent Institution, on June 16 next, at the Whitehall Rooms, Hotel Metropole.

Mr. A. F. Dutton.—Visitors to the Shrewsbury Flower Show in August last will remember a fire which occurred, but was extinguished at a critical moment by Mr. A. F. Dutton, of the Nurseries, Bexley Heath, Kent. The Shropshire Horticultural Society have recently had a meeting, and in recognising the service rendered have presented Mr. Dutton with a handsome silver waiter, inscribed with his name and address.

Gardening for Dundee school children.—Great as has been the success attending the movement to encourage a taste for flowers among the school children in Dundee by means of a bulb competition, the movement has in the past autumn attained dimensions never expected by its most sanguine promoters. In autumn upwards of 38,000 bulbs were distributed among the children, at a cost of about £64, and at Dudhope Park, where the children who apply for it are given a supply of leaf-mould by Mr. Montgomery, the superintendent, upwards of 2,000 have been supplied. Mrs. Carlaw Martin, who originated the movement, has reason to be highly gratified by the success of her efforts. A new development is also under consideration by a small committee of the School Board of Dundee. This originated in a letter from Mr. James Malloch, suggesting that a small garden should be laid out in front of Blackness School. There are, of course, several important questions involved, but the proposal is certain to have sympathetic consideration from the authorities.

Royal Caledonian Horticultural Society.—The council of this society and the representative committee to co-operate with the council in connexion with the 1905 international show, met at 5, St. Andrew Square, Edinburgh, on Wednesday, the 14th inst., to revise and adjust the

schedule of prizes for the international show. As adjusted, the schedule includes handsome prizes for fruit, plants, cut flowers, vegetables, and an experimental section, besides a competitive plan for under gardeners, the total prizes amounting to over £1,400. It is expected that the schedule will be issued early in 1905. Donations to the amount of over £600 have been intimated, but in order that the exhibition may be really worthy of the occasion the council hope that further donations may yet be received.

George Ellwanger, who celebrated his eighty-eighth birthday recently, is one of the most celebrated American horticulturists. Many friends called to offer their congratulations, and also to present Mr. Ellwanger with a silver coffee service as a token of their esteem and regard. In the address presented we read: "As a boy you learned your profession of a nurseryman with all the thoroughness of a German, and in manhood you practised that profession with all the energy of an American. Engaged in a business where it is easy to deceive, and where deceit could not readily be discovered, you have made your name the world over a synonym for absolute integrity. Your life as a citizen has been one we may all emulate. You are held in high esteem by all who know you, and honoured by those to whom you are simply a name."

Dicentra spectabilis.—This is a well-known beautiful hardy flowering plant, introduced into Britain from Northern China by the Royal Horticultural Society, through the agency of their great traveller Robert Fortune, in 1846. The *Dicentra* is only a common hardy plant, costing now but a few pence to buy, but for beauty and usefulness, either in the cottage or palace garden, few of the many valuable importations of the society excel this plant in charm and elegance of foliage and flower. In the rush of late years for novelties so freely offered to the garden-loving public, I am afraid the value of this beautiful plant has been somewhat lost sight of. Years ago one used frequently to come across large bushes 3 feet and 4 feet through and as high, loaded with its two-winged lyre-shaped pendent flowers. These are a beautiful rosy pink, and with the pale green foliage present a rare picture of plant beauty. This is a plant that does not like being disturbed or replanted too frequently, therefore those intending to plant should select a sunny spot in which it may have room to grow and luxuriate for many years. It will not succeed in wet, heavy soil, and where these conditions exist warmer and lighter soil must be substituted. When forced for the decoration of the conservatory and arranged in association with bulbs and Azaleas, &c., in flower in spring, its value is well known.—O. T. E.

Reinwardtias.—These old winter-flowering greenhouse plants are worthy of more general cultivation than they receive. They are somewhat shrubby in character, natives of the mountains of the East Indies. Cuttings root readily in a propagating frame in spring. They should be pinched several times during the summer to induce compact growth. If larger plants are required old plants may be cut back and grown on for several years. A temperature of 50° to 55° is necessary during the flowering season. They are very subject to red spider, so require frequent syringing. *R. trigyna* (orange yellow) and *R. tetragyna* (primrose yellow) are now flowering freely in the greenhouse at Kew.—A. O.

Luculia gratissima.—Planted out in a bed a bush of this plant some 8 feet in height is carrying over 100 trusses of flower. The very sweet scented flowers are of a delicate rose or pale pink colour. Grown as a pot plant it is not very successful. Planted out in a bed or border it flowers freely annually. As a compost, fibrous loam, peat, and coarse sand are suitable. It is a native of the Himalayas.—A. OSBORN, *Kew.*

Colour in the garden.—I notice that on page 334 "T. A." Cirencester, remarks upon "the extraordinary colouring of the autumn foliage." I do not know if this bright colouring has been noticeable in the majority of counties this year, but certainly it has not been observable in the south-west, where the autumnal tints have been poorer

than for twenty years. I have been much disappointed in this, as on account of our glorious summer I had been looking forward to exceptional brilliance at the time of the turn of the leaf. Several friends to whom I have spoken on the subject agreed that the colouring was unusually poor. The Wild Cherries on the banks of the Dart quite lacked their glowing crimson-purple, the burnished copper of the Beeches was far duller than in former and wetter years, and even the pale gold of the Elms was less bright than usual. In southern Cornwall I remarked the same lack of colour.—S. W. FITZHERBERT.

THE FLOWER GARDEN.

ANTIRRHINUM GLUTINOSUM.

THIS pretty Spanish plant deserves more general use in wall gardening in our southern counties. It would scarcely be hardy in the north and the midlands, but south of London does well in wall joints, as the picture shows. It is easily grown from seed. The only care the seedlings need is to ensure that the crown of the plant is well within the opening between the stones—anything from 2 inches to 3 inches—to ensure good protection from cold and wet in winter. The foliage is grey and downy, the flowers warm white, with a distinct yellow blotch on the lip. It grows spontaneously on the walls of the Alhambra in Granada. G. J.

PENTSTEMON BARBATUS.

In his note on this Chelone "S. W. F." says *P. b. Torreyi* is more vigorous than the type. This I agree with, but consider the type to be a much better flower. The intensity of colour is so much to be preferred, being really a deep crimson, whereas in *P. b. Torreyi* it is a washed-out red, quite pale and unattractive. In our heavy soil neither of the two forms winter well in the open; the main portion of the plants are crippled. In consequence of this the growth in spring is weakly, and the flower-spikes correspondingly so. In October I break up the old roots, plant the most vigorous of them in boxes, wintering these in a cold frame, putting them out again in early April, and from these I get flower-spikes 4 feet long. E. M.

THE CUSHION (ONCOCYCLUS) IRISES.

THOSE who have endeavoured to grow the Cushion Irises, and particularly those of your readers who believe that the drying-off method out of ground is wrong, the idea of planting them at the present time may appear foolish. But it may not be so wrong as one might suppose. I have before stated in THE GARDEN that I regard the trying conditions of an English winter as most unfavourable for the growth of these plants. Why? Because the imported plants coming to us year by year from their native haunts and other sources have already endured probably a protracted term out of ground, and have doubtless received a greater share of that complete rest which is rightly, I consider, regarded as essential to their welfare. The grower, desirous of conforming to the dictates of catalogued instructions, hastens to plant them forthwith. And, in their turn, the plants, coming into contact with the warm and moisture-laden soil and environment of an English garden in the early autumn, are naturally quickly responsive, and in a few days root fibres may be emitted from the rhizome and shoots appear above ground in a very short time. But is not this all wrong for a group of plants that we know and believe prefer a warmth while growing to which we in England are strangers? Were it possible that the plants make root only, and that no top growth were visible before the warming influence of spring, then to proceed unchecked to the maturing stage, it is more than likely a better flowering would ensue and a finer development in the plant for its future work. But this is not possible if we cling tightly to orthodox methods.

Impatient by reason of a long-continued season of out-of-ground dryness, which in itself is infinitely more complete than any other form of enforced rest, the plants, earlier to ripen in their native conditions, or probably early collected in the wild state as a matter of convenience to collectors, naturally spring quickly into activity, only to find the environment uncongenial and unsuited to general progress. In this stage of their existence the choice, freshly formed shoots of these Irises are rarely missed by slugs, and, rather than wait for these pests to sample a few of the strongest breaks, I give an occasional dusting of freshly collected soot, and take the further precautionary step of forming a ridge or belt round the bed or the plot of ground. But what may be equally good, or even better in the end, and more especially on clay soils, is the adoption of a method of deferred planting. This need not be of the whole stock. It were better it should be an experiment of a part for comparison and reference. Those who know anything at all about an Iris are aware of the remarkable vitality of the rhizomatous species in general.

In adopting this deferred method of planting it is suggested that it be for the express purpose of endeavouring to keep the top growth below ground until the worst of our wintry weather is over. Meanwhile it is not suggested that the rhizomes shall be exposed to external conditions.

Some years ago, with much the same belief in this particular as I hold to-day, all my home-grown stock of *I. susiana* was lifted or shaken out of pots about the middle or end of July, and when dried sufficiently were placed in quite dry silver sand in large pots, which were transferred to a dry and very airy shelf in a potting-shed, the roof of which was thickened and obscure glass.

In this way the plants kept perfectly, and planting was done very late in November or early in December. By these means growth was retarded, and the only appreciable difference was a somewhat reduced stature at flowering-time. The above circumstance was recalled the other day when planting some dry roots, and I have marked them for comparison with others planted much earlier. Already *Iris susiana* is well above ground. Some established plants, indeed, not lifted at all this season, have hardly relinquished the green leaf, though in a sunny and warm spot. On the other hand, some of the new *Onco-Regelia* kinds from M. Tubergen, planted in early October, very quickly made a start, two of the kinds in a small set displaying a welcome vigour. One plant, indeed, has already four strong shoots through the soil, and another just half this number, while several others are still below the surface.

As these new kinds are of varied parentage, the slowness or activity to start into growth when planted may be explained in this way, and I am noting this for future reference. I

believe I am right in stating that the whole of these Irises, if not, indeed, the Cushion Irises also, are subjected by M. Tubergen in Holland to annual lifting. The plants I received gave one infinite pleasure by reason of the strong and clean, vigorous, dormant crown and side-buds. Seeing how great a success has been secured in Holland with these fascinating novelties, the cultivator at home should have nothing to fear for his own success if the plants are well cared for.

Hampton Hill.

E. H. JENKINS.

THE PENTSTEMONS.

THE illustrated note you published on page 348 of *Pentstemon Bridgesii* served to remind me of the beautiful garden plants in this genus, plants that one rarely, if ever, sees nowadays used in the border, a circumstance probably due to the increasing popularity of the more showy hybrids of *P. Cobæi*, *P. Hartwegii*, and *P. gentianoides*, and to a supposition (it is nothing more) that these species are of weakly growth, tender, naturally short-lived, and weedy. There are, in fact, many showy and very hardy plants among them, the worst forms of which are not to be discarded, whilst the best of them excel in their free growth, the rich and refined colourings of the invariably tubular flowers, in which rose, salmon, amethyst, azure, lilac, violet, scarlet, carmine, and white are individually represented in their best shades, and often in splendid contrast to leafage that resembles *Crassula* and *Echeveria* in shape and glaucous tint. They range in height from the slender *P. humilis*,



ANTIRRHINUM GLUTINOSUM ON ROCK WALL.

as charming a plant as ever graced a rockery, and of the brightest blue colouring, to the vigorous *P. Palmeri*, *P. ovatus*, *P. barbatus*, and *P. Scouleri*, which are the least vivid in their colouring. Their duration is generally perennial. A few only are undoubtedly biennial, and many of these, if grown well, reach the third and fourth year in a vigorous state, especially in naturally warm and free soils. They will often, in common with many perennials, flower themselves to death, but, as they bloom and seed freely and are not difficult to rear, there is no difficulty in keeping a collection together. Generally it is better to plant in spring. Several of the best make long simple roots that go down deeply, and if these are injured in transplanting in autumn, and the cellar or rhizome exposed, the plants quickly succumb to frost, wind, and wet.

With the single exception of the florists' forms, which get more tender as the plants improve in size of flower and substance of petal, there is no necessity to "winter" *Pentstemons* under glass. Cuttings of a few doubtfully hardy kinds may be taken in the earliest autumn, but the plants themselves winter best in the open if undisturbed. Where *Montbretias* struggle to live throughout winter, and particularly in winter-wet districts, it may be necessary to protect *Pentstemons*, not otherwise.

There are about forty species known to cultivation, and I believe many more are grown in America than we know of here. The best border plants are those that most resemble *P. barbatus* (the *Chelone* of gardens), and of these I consider *P. acuminatus*, whose flowers are reddish purple, and *P. secundiflorus*, *Fuchsia*-like in its elegant habit, with arching spikes of deep blue flowers, good indeed. Forms of *P. barbatus*, both of hybrid origin and seminal sports, give us scarlet, carmine, rose, palest salmon, and pink flowers in many pretty and useful shades. *P. spectabilis* is a good pink, in graceful tall panicles. Blue in several pretty shades is the colour of *P. speciosus*, and both flowers and panicles are very large. *P. Palmeri* reminds one of the florists' *Pentstemons* in its large, rosy, distended flowers, on spikes 3 feet high.

P. Bridgesi, a bright red, and *P. Richardsonsii*, an elegant bush, with *Alonsoa*-like leafage and dainty panicles of bright purple flowers, long tubed and exceedingly graceful, and *P. heterophyllus*, a kindred plant, whose flowers are a beautiful sky blue and freely borne, are a beautiful group.

P. Halli is a gem for the rock garden, forming a carpet of blue-purple flowers, and *P. glaber*, in its many shades of lilac, pale blue, and purple to deepest violet, the flowers in dense heads on nearly prostrate stems, which become erect if the plants are crowded, is well known.

P. œruleus, a beautiful blue and exceedingly compact and free, and *P. azureus*, a similar plant with pale violet or azure white-tinted flowers in branched tufts 1 foot high, are among the best.

P. humilis has the *Gloxinia*-like flowers of the florists' *Pentstemon*, and the neatest habit and the brightest blue of all *Pentstemons*. It is naturally short-lived.

Strong-growing species which have flowers less showy than most are *P. digitalis*, a rather coarse plant, with stout spikes of white distended flowers; *P. ovatus*, undoubtedly a biennial, with broad clasping leaves and sturdy spikes of blue blossoms in great quantity fully 2 feet to 3 feet high; *P. mackayanus*, a sturdy plant with hairy leafage and pale purple flowers, of which selected forms only are good.

P. Menziesii and its forms are better known. Here again selections are necessary. The general colouring includes undesirable traces of slaty purple.

Finally, the glaucous-leaved *P. murrayanus* and *P. Wrightii* are exquisite plants. *P. Wrightii* in particular should prove of service in bedding for its leaf-colouring alone. The youngest leaves have a warm ruddy bronze tint, the older ones are almost as glaucous as the *Auricula*, whilst the flowers of bright carmine may be likened to those of *Bouvardias*. There is a wealth of good plants among them, and material still for the florist to use in the raising of new races.

G. B. MALLETT.

DOUBLE DAISIES.

FEW small plants are equal to the Double Daisy for winter and spring flowering. Plants raised from seed sown in May or June begin flowering in early autumn. If in a fairly sheltered position or the winter is not too severe, they will continue to do so for seven or eight months. A very large percentage of the seedlings come double and true to colour. Division of the roots at the end of May or beginning of June is also practised, but, speaking generally, these do not flower so early in autumn as seedlings. One of the best double white varieties is *Snowball*. Four small beds of this variety in front of the Palm house at Kew have been flowering since planting, after the removal of the summer bedding. Being in flower when planted there, it was an easy matter to remove the one or two plants which had half-double flowers. A good pink variety is *Longfellow*. *Firefly* is useful as a scarlet, but shows a yellow centre, to which some growers would object.

A. OSBORN.

IN A SMALL WAY.

SIX whole weeks has the Oblong Eden lain in solitude and daily growing untidiness, while its Adam and Eve have been journeying by the new Elder Dempster route over the 4,000 and odd miles of ocean between it and the West Indies. It has been contrasted with Jamaica Gardens, and in spite of all the advantages of a whole year of June, tropical sunshine, warm tropical rain, and fertile soil, has come out nobly in altitude of scale. To be sure, the Jamaica Gardens will be richest in blossom just when the Oblong lies most deeply sleeping, and it may be that if we saw them then we should change our minds; but if we take even such a little amateur's plot as this is, and place it side by side with such gardens as—in July and August—may be seen in the lovely tropic islands under consideration, the superiority it owns in summer beauty will be at once apparent. In the first place, although we saw gardens—I am speaking of the general run, not of such rare individual and cherished belongings as that one of which we read in THE GARDEN'S pages—which had had care bestowed on them, they were greatly in the minority. About Kingston, where they come under the heading "suburban," they could in no way compare with the trim and tasteful parterres, not original to be sure, but blazing with colour and exquisitely tidy, which are common in the more countrified London suburbs—Putney for instance. Most of them looked as if they were left to themselves, and in only a very small proportion was there any attempt at making beds and so on, while a great many people tried to grow Roses and failed, instead of making the most of the splendid indigenous plants that a little cultivation would have rendered dreams of beauty.

The Roses we saw in these gardens were all of the garden sorts, such as the old-fashioned pink or white Cluster Roses, *Chinas*, or *Teas*, and the blossoms were small and the growth straggling. The grass, which is not at all like our English turf, does not equal it for lawns, being much more thin and open in growth. In almost every garden, cared for or not, there were great bushes of *Hibiscus*, either flaming crimson-red, orange-red, or of a pinkish cast as to the large showy blossoms. This is Nature's planting, and so are, I suppose, the glorious *Acacias*—called the *Flamboyant*—one sees in and around Kingston, laden with massed scarlet flowers, gleaming like fire in the sunshine. These trees—they are large ones, too—are magnificent in the summer, but I believe they are very ugly later on when the beautiful bloom has given way to quantities of squalid-looking

dingy brown seed-pods. At Mandeville, which with Kingston and Port Antonio at the north form a good representative trio of places for allusion, the earth is deep red, staining everything, and here the *Hibiscus* was in full glory.

The negroes do not seem to have the slightest idea of flower gardening, and in no single case did I see the smallest sign of interest on their part in any denizens for their plots but those which, like the *Banana*, *Yams*, or *Coffee-bushes*, come under the head of strict utility. The *Yams*, by the way, have to be grown like *Hops*, on poles, for if they are allowed to trail the ground no tubers would be produced. The *Crotons* form one of the chief attractions of the gardens both at Mandeville and Port Antonio, while at the former place *Dahlias* seem to be a good deal fancied. I only saw *Pompons*, but they did very well, and the flowers were as good as they were at home—perhaps better, although about a month earlier in coming. The *Crotons* were big bushes of the most splendidly varied hues, and some had three sorts of leaves, green and yellow, green and red, and all red, on one bush. They were being clipped in the hotel garden just as *Laurels* are at home. The flowers at the wayside, though they disappointed us, were a good deal more varied than those in the gardens. The "Spanish Needle" is the most common wild flower in the red earth, and has a blossom not unlike *Sparmannia*. Then there were quantities of *Thunbergias*, nearly all orange with black eyes, one white.

There were *Ipomœas* of one or two sorts, the commonest a medium-sized pink-purple, very pretty and showy, and at Port Antonio, where the soil is not red, but seems chalky, a curious flower with a *Thistle*-like habit but not prickly, whose blooms were like just a few plain primrose, uneyed, and I saw a long tubed slender *Stephanotis* blossom, and smelt sweetly, was extremely frequent. An *Evening Primrose*, neat and compact, grew freely by the roadside close to the sea, and the brackish marsh at its margin, which broke into *Mango swamps*—I have never seen anything much more desolate-looking than a *Mangrove* swamp scuttling with crabs—at intervals. There were *Oyster* plants, so called for no conceivable reason, which are like small *Aloes*, with deep red backs and the silver-green pointed leaves, and beautiful *Adiantums* of different kinds all over the banks edging the road which leaves the sea to go up into the hills. The *Bougainvillea* was good in a few Kingston gardens; so were *Allamandas*, and a *Brugmansia* in the hotel garden at Mandeville was about 12 feet high and as much round, covered with its splendid trumpets. We missed the *Orchids*, as they flower in January onwards, but it was curious to see them, with the handsome *Pine-apple* growing all over the trunks of roadside trees. A pretty little grass with red bracts like a tiny *Poinsettia* was interesting. There was nothing to bring home to the Oblong, as all the flowers, plants and weeds alike, are what one sees in warm greenhouses here—or would be so if imported. On the ship coming back there were a few *Orchids*, the property of passengers, which were mostly accommodated in the wheel-house, but they did not enter into our horizon, limited (sadly) to hardy things once home is reached.

The Hope Gardens, within an easy electric car ride from Kingston, are very interesting, but chiefly devoted to shrubs and trees. The Government keeps up several gardens in Jamaica, but they are, I should imagine, by no means heavily subsidised. The director, Mr. Fawcett, was most obliging in giving me leave to photograph (a permission

most unluckily stultified by my indulging in the mild fever which generally attacks the un-acclimatised in the tropics) and in sending me his bulletin, a very interesting publication. I do not know whether I am justified by facts in saying so, but it appears to me that exchange of plants would be very welcome; private enterprise does not seem at all equal to the delightful task that trying all sorts of half-hardy things which do well with us in summer out of doors should prove.

M. L. W.

SWEET PEAS FOR EVERYONE.

IN a very large garden of which I am lucky enough to have a key, Sweet Peas were grown last summer with such great success at such a remarkably small outlay of trouble and expense that a note or two about them seems worth recording.

To begin with, only penny packets of seed were used. Only the best sorts were ordered, the most famous that is for beauty of form and colour; novelty was not so much the consideration as a great profusion of good flowers.

In its natural state the soil of this garden is not particularly good, so by way of preparation, at each spot where the Sweet Peas were to be planted, a hole was dug out, about 18 inches in depth, and well enriched with excellent manure, for which in this case thanks must be given principally to the pig. No doubt any other good plant food would have done just as well; because one thing has proved good that is no reason why another should not be equally so. Plants do not want nearly so much fussing over as some people seem to fancy.

The Sweet Pea seeds were planted about 1½ inches or 2 inches apart, in the form of a circle, and never more than from ten to fourteen seeds in any group. Small bushy sticks were placed around at first, which had to be exchanged ere long for very tall and stout ones, so fast the seedlings grew. Each colour was kept separate, and to each group was given a label, so that one had the satisfaction of a personal introduction to every flower as we enjoyed it. Real flower-lovers always appreciate this boon, learning to recognise the different blossoms very readily by small differences in the same way as after a time we know the individual sheep in a field, or the stars in the sky. There are the hooded Sweet Peas and the plain; and many striking differences of form and colour. A new shade or shape is noticed at once. Who could mistake the rosy red Salopian—or is it crimson, so brilliant that one fancies a sunbeam must be hiding in it—or the Black Prince, or the Navy Blue, or Emily Eckford, or the Hon. Mrs. Kenyon, which so far as I know is the yellowest Sweet Pea that we have? Lady Grisel Hamilton, hooded, of a beautiful shining lavender; Dorothy Tennant, a rosy mauve, still blooming in the open with good length of stout stem in November; Colonist, soft lilac and bright rose; Gorgeous, an orange-salmon colour, with wings of soft pink; Blanche Burpee, pure white with large blooms, and generally three flowers to a stem; Lovely, a delicate rose, described by some as shell-pink; and Countess Cadogan, violet and sky blue, are all particularly noticeable.

These Sweet Pea seeds were sown in early April; by early June there were flowers enough for picking, and during the long hot summer they never flagged or failed. There was never a day when handfuls were not ready, and the more one took the more they grew—it was the widow's cruse. A good bunch was gathered

this autumn as late as the 14th ult. There are seventeen sorts in all.

It is difficult to sum up the amount of pleasure given by these simple flowers, whose cost was really next to nothing, for in planting them one penny packet went a wonderfully long way, furnishing quite a number of the neat round rings that were afterwards such big bushes of sweetness, that it seemed a miracle so much could spring from such small beginnings. When we think of the number of Sweet Pea seeds sown every year that come to no perfection, because too many are put in at once, it is really heart-breaking. No one can say that a hedge of Sweet Peas is not a lovely thing, and when grown this way in the kitchen garden, just as we grow the edible Pea, they do splendidly. Still, the plants do not get quite so much air and light all round them thus as if grown in circular patches, and no plants take more kindly to the open-air treatment than Sweet Peas, so it is in rounds we mean to sow our own next spring.

It is impossible to pass along the scented pathway by which these Sweet Peas grow without thinking them the most joyous of all the summer flowers that blow. Their pretty wayward clusterings and flinging of soft limbs, the fragrance that invites all bees and butterflies, the hardiness that underlies their apparent fragility, their bounteous generosity, and their own so evident happiness in being alive and in full bloom, endear them to us, and bring us into sympathy with their content. One fancies that such flowers as these are born to live conscious of the heart-happiness they give.

Wishing to make these notes on Sweet Pea growing really useful, I have asked the gardener who is responsible for them to write me his directions, which I add:

"This year the Sweet Peas were planted early in the second week of April, and commenced blooming the beginning of July; but I prefer sowing fully a month earlier. My plan of preparation for them was to take out the soil, making a hole 2 feet in diameter, and the same depth, breaking up the bottom, and adding a mixture of well-decayed pig and horse manure, mixed with the soil taken from the hole, filling up to within 6 inches of the top, well treading the same, and finishing up with a few shovelfuls of good turfy loam. Then press in about ten or twelve seeds singly, about 2 inches deep and 2 inches apart, in a circle over the centre of the prepared bed. When the plants are about 1 inch above the ground place a few bushy twigs about 1 foot high around them, afterwards staking them with good stout sticks from 6 feet to 7 feet high, placing them well outside the plants, so as not to injure the young roots, watering afterwards as required, but never in dribbles. I always prefer to give a thorough soaking in dry weather, giving not less than three gallons to each clump about every ten days, afterwards (when in bloom) occasionally following that in a few hours with about a gallon of soot water in a clear state. I have used no artificial manures whatever. I consider all else that is needed to ensure continuous blooming is to remove the flowers as soon as they fade. The clumps are about 4 feet apart."

In some garden book or other last summer it was amusing to be told of a new way of gathering Sweet Pea blossoms, supposing one had no knife or scissors handy. One must hold the stalk firmly in the fingers and pull it outwards. The flower-stalk will come away from the main stem, as if from out of a socket. This seemed a useful piece of information, for few of us have failed to discover that Sweet Pea stalks are not a little tough and stringy,

and therefore difficult to gather unassisted. So we tried the experiment; one of us pulled a handful the new way, and the other cut them comfortably with scissors. The former eyed her completed nosegay with disappointment; the special charm of the Sweet Pea was quite lost to it. There was a bright tight bunch of Sweet Pea flowers certainly, but none of the tender, airy grace that comes of a bunch cut freely, with its curly tendrils, clinging fingers, and trailing sprays, just as the flowers grow. The triumphant possessor of the "scissors" posy decided it was much better to keep to the old-fashioned time-honoured method of gathering the dainty blossoms of Sweet Pea.

F. A. B.

A GENERAL CALENDAR.

CHRISTMAS DECORATIONS.

A WALK through any of our large country markets at this season of the year will afford the best possible means of seeing what materials are likely to be used for the embellishment of church or home at Christmas time. Holly, Mistletoe, and Ivy will be much in evidence, showing how tenaciously we still cling to all old customs. Choice flowers and delicate exotics will also be found in great abundance and variety. Our gardens will also yield a good supply of Berberis foliage, with its brown and bronze tints. The Box and the Yew must not be forgotten. *Ruscus racemosus* will be found useful for large vases with flowers of different kinds. Pampas Grass plumes, spikes of Echinops, and *Eryngium* cut from the herbaceous border in summer, with as long stems as possible, are very serviceable just now. Long dried sprays of *Humea elegans* may be mixed with these to add a little colour; they are also very graceful.

In arranging flowers beware of overcrowding and of mixing too many things together, or of using flowers of a considerable size with short stems and putting them into small specimen glasses as though they were show Dahlias intended for exhibition. Many handsome flowers are only spoiled through being crowded with short stems amongst a lot of other kinds in an unrecognisable mass. Chrysanthemums are still to be obtained in various sizes and colours. These are some of the easiest flowers to arrange. Various kinds of foliage may be used with a good result. If only overcrowding is avoided and the chosen colours do not clash, whites and yellows will be found the most serviceable.

Jasminum nudiflorum.—This Jasmine appears to be flowering with exceptional freedom. Some of the branches are completely wreathed with the clear yellow, scentless blossoms. When it was first introduced by Fortune from the north of China it was considered only suitable for indoor culture, but now, at the end of December, it brightens up many a street in the suburbs of our large towns.

Christmas Roses.—Although there is some flower beauty to be seen in the conservatory and greenhouse, the garden bereft of the white and gold of the later Chrysanthemums is desolate. It is therefore refreshing to come across a large clump of Christmas Roses, the dark green spreading leaves overtopped by dozens of large white flowers. *Helleborus niger* is far too little known, but where a good variety is once established in a garden basketfuls of white flowers may be had for the decoration of the house during winter. Christmas Roses like a deep, rich soil having a cool bottom. A border sheltered from cold wind suits them well. Opinions differ as to the best time to plant. The month of February is the best time to divide and replant large clumps, but ordinary-sized plants may be removed when in flower, and if done with care no harm will result.

Preparing Onion ground.—No time should be lost in preparing the plot intended for spring Onions. To grow heavy crops of Onions the old

mode of trenching is not the best, as in this case the manure is buried so deeply that it is a considerable time before the young rootlets reach it, whereas they require support from the first. Give a good dressing of rich manure, adding a good proportion of soot and wood ashes. Dig the ground deeply, well mixing the above-named ingredients as the work proceeds. By this means an equal mixture is secured from the top to the bottom.

Norwich.

T. B. FIELD.

COLONIAL AND FOREIGN FRUITS.

(Continued from page 414.)

MATUNDULUKA.—Under this somewhat outlandish name the fruit of *Ximenia americana* is known in Natal. The plant is a shrub or small tree belonging to the order Olacineæ, having a wide geographical range, being found in India, Ceylon, Andaman Islands, Malay Archipelago, tropical Africa, and America. The fruit is fleshy, ellipsoid in shape, 1 inch to 1½ inches long, and bright red or scarlet when ripe, though in some varieties they are yellow. They have an acid-sweet aromatic taste in some forms, and before they are fully ripe they are slightly bitter. The skin is thin, but the flesh is firm and abundant, and the appearance of the fruit in its ripe state has much to recommend it. Preserve made from it in Natal has proved to be very good, and both fruits and preserve might find a market here.

JUJUBES.—The Indian Jujube or Chinese Date (*Zizyphus Jujuba*) is a tree from 30 feet to 50 feet high, growing throughout India, Ceylon, and Malacca, both wild and extensively cultivated, and found also in Afghanistan, Malay Archipelago, China, Australia, and tropical Africa. The fruits vary considerably in size, shape, and quality, according to the variety grown, though they never exceed in size that of a medium-sized Gooseberry. It is very fleshy when fresh, becoming mealy as it dries, and though strongly acid is very pleasant to the taste. It is largely eaten by the poorer classes in India. All the varieties are of a sweetish-acid flavour and very palatable. In the Deccan famine of 1877-78, the fruits of the Indian Jujube were powdered and made into a kind of meal, which was largely consumed as food. The pulp of the dried fruits mixed with salt and tamarind is used in India as a condiment, while the unripe fruits are pickled.

The common European Jujube (*Zizyphus vulgaris*) is a shrub or small tree, sometimes growing 20 feet high, and widely cultivated in Spain, Italy, and the South of France for its fruits, as well as in India, China, and Japan. These fruits resemble those of the foregoing species, changing as they ripen from green to red, and having a sweet acidulous taste. They are gathered in September and carefully dried for use as a dessert fruit. Jujubes are not

unfrequently seen in English shops preserved in bottles in the dry form, and sometimes in syrup; they are always, however, more or less scarce and high priced.

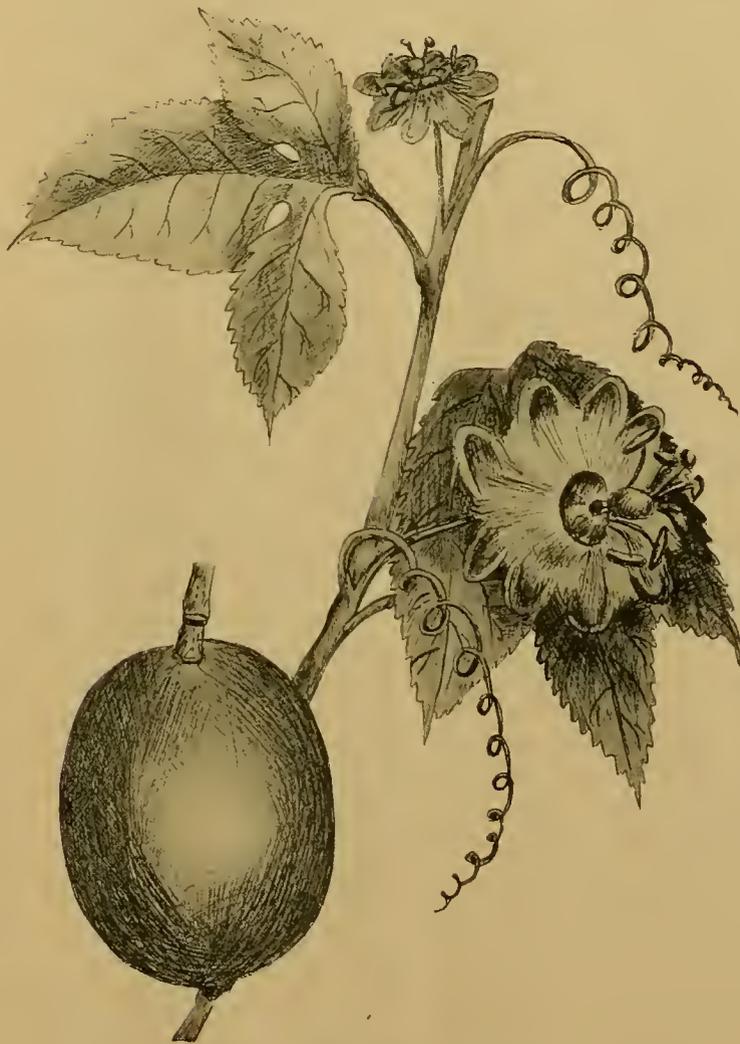
AKEE (*CUPANIA EDULIS*).—This tree is perhaps better known as *Blighia sapida* from having been named after Captain Bligh of H.M.S. "Bounty." It grows to about 30 feet high, and is a native of Upper Guinea, from whence it has long been introduced into the West Indies and South America. The fruit, which is of a red colour tinged with yellow, is fleshy, about 3 inches long and 2 inches in diameter; it is somewhat three-sided, opening when ripe into three divisions longitudinally and exposing the three hard, black seeds, one of which is contained in each division. These seeds are

Both plants belong to the same natural order—Sapindaceæ.

GENIP (*MELICOCCA BIJUGA*).—This is a beautiful branching tree, 40 feet to 50 feet high, belonging to the same natural order as the last. It is a native of Guiana and New Grenada, but has been introduced into the West Indies, where, especially in Jamaica, it has become naturalised and is now abundant. It produces numerous fruits of a green colour, in shape and appearance somewhat like Bullace Plums. The pulp is described as having a deliciously sweetish-acid and slightly aromatic taste. The tree flowers in April and May, and the fruit is in perfection in August. Though the fruits of the Genip are not known in English commerce, they have appeared at

different times among collections of fruits from South America and the West Indies at the several international exhibitions.

MALAY APPLE, ROSE APPLE, and JAMBOLAN are names given respectively to the fruits of *Eugenia malaccensis*, *E. jambos*, and *E. jambolana*, plants belonging to the Myrtaceæ, and closely allied to the Guava. The Malay Apple is a handsome tree with a profusion of white or scarlet flowers, succeeded by an abundance of fruit about the size of a small Apple, soft and juicy, and in its fresh state rather insipid, but generally eaten and considered very wholesome in the countries where it is grown. Though the tree is a native of the Malay Islands, it has been introduced into most tropical parts of the world, and is very extensively cultivated in gardens in Bengal and Burma. A number of varieties are known with fruits of different sizes and colours. The Rose Apple is a moderate-sized tree extending through India, Burma, and Penang, to Australia, and cultivated abundantly in India and the West Indies. The fruit is somewhat similar to the last named, but has a distinct flavour of Rose-water, hence its common name. It makes an excellent preserve, and being very productive might be turned to good account. The fruits themselves are probably of too soft a nature to be brought to this country in a fresh state. An attempt was made many years ago to introduce them in a candied or crystallised form from Jamaica, having been first exhibited in this state amongst a collection of West Indian fruits at an exhibition in Philadelphia, where a silver medal was awarded



THE EDIBLE PASSION FLOWER (*PASSIFLORA EDULIS*). (Reduced.)
From a drawing by Miss Lillian Jackson.

partially buried in a white or pinkish-tinted fleshy socket or aril; this is the edible part of the fruit, and when fully developed and quite ripe it is said to have delicate agreeable sub-acid taste, very grateful to the palate, and melting in the mouth. The fruit seems to require the heat and other conditions of a tropical climate to bring the pulp to perfection, as fruits ripened in hot houses in this country have failed to develop the flavour attributed to it by travellers. The nuts, like those of the Litchie, which were described in a previous paper, are too soft for importation in their fresh state, but might be preserved in syrup,

to them. From this they were introduced to notice in London, and a large quantity was immediately asked for, but as this could not be supplied at once, there being no means of candying on a large scale in Jamaica at the moment, and the perfection of this art belonging essentially to the French, candied Rose Apples lost their chance, and nothing has been heard of them since. As the season for these fruits in the West Indies is in August and September the candied fruits might well come into the English market at this, the best season of the whole year, namely, Christmas.

The Jambolan is a moderate sized tree, found wild or under cultivation all over India; it has also been introduced into the West Indies, where it is said the trees have been propagated in consequence of the favour with which the fruits have been received. In India it flowers at the beginning of the hot season, and the fruits ripen in July and August. They are usually about the size of a pigeon's egg, of a purple colour, with a slightly astringent sub-acid taste. The fruits are said to be improved by being pricked, rubbed with a little salt, and allowed to stand for about an hour. In Goa a wine is made from them. In the genus *Passiflora* we find several species producing edible fruits.

JOHN R. JACKSON.

(To be continued.)

ROUND ABOUT A GARDEN.

THE COMMON OR GARDEN EVERGREEN.

DURING December the only use which most of us have for a garden is to look at it through the window now and then to see if the rain has stopped. For this purpose evergreens of the Cypress type are very useful, because against the intensely black interspaces of the foliage the finest drizzle can be clearly seen. Perhaps this is why so many of these funeral plants are usually stuck round our houses by way of shrubbery, for one cannot see any other merit which they possess over other evergreens which are quite as hardy and twice as pretty, yet a hundred times more seldom seen. In gardening, more than in anything else almost, it seems difficult to get out of established ruts. Visit a nursery and you will see all the familiar plants growing by hundreds, but if you want to see something better you will be taken to out-of-the-way corners where the best things are grown in small groups only, because they are so seldom asked for. Loyalty to old favourites is sometimes enulogised as a British merit, but in most cases it arises from sheer ignorance of the newer and better, combined with laziness which prevents us from taking the trouble even to find out what we would like.

MONOTONY OF SMALL GARDENS.

And this frame of mind reacts upon the conduct of the hired gardeners whom dwellers in villadom employ. Accustomed to deal with patrons who have never taken the trouble to learn even the names of half-a-dozen garden shrubs, the gardener steers his safe and easy course round a small circle of familiar things, which can be bought anywhere by the half-dozen and be dotted about in as many gardens.

Hence the dismal uniformity of rows upon rows of gardens, which, though they may collectively cover as much ground as Kew Gardens, have not between them as many varieties of pleasing plants as would there be put into a single shrubbery group. The cult

of the common evergreen is, in fact, the bane of British gardening, and we shall not get rid of it until we begin to take a personal interest in the garden work of winter. For now is the time when we can safely plant anything that we like for the beauty of the garden next year and many years to come.

REPEATING PAST BLUNDERS.

In the matter of trees, again, why should the sole timber of our small gardens almost always be common Elm, common Horse Chestnut, common Lime, or common Sycamore? Massed and grouped in a wild park these weed trees



ROSELLE (*HIBISCUS SABDARIFFA*). (Reduced.)

See "The Garden" of the 17th inst., page 413.

may be effective enough, but individually occupying a large part of a small garden, which might have been so easily filled with something better, each of them is matter in the wrong place.

To remove a large tree is, however, a serious matter sometimes, and to this extent a present owner must often be content to suffer for the errors of his predecessors. What is really wrong is that we ourselves take so little thought of avoiding the same blunders. How many owners of gardens think in the first instance of planting beautiful trees which will be a growing beauty to the neighbourhood for many decades?

NEW TREES FOR OLD.

Instead of allowing a wild Sycamore sapling to thrust itself up in the heart of a shrubbery until it vulgarly dominates the whole garden, why not prepare for the future by planting there and carefully tending some tree of striking foliage and graceful habit? The Sycamore itself has Maple cousins in plenty which would attract attention by their beauty anywhere. The common Oak, too, has relatives with richer foliage and bright autumn tints. There are Limes much more striking in aspect than the common kind, without its bad habit of beginning to drop its leaves soon after midsummer. There are Poplars golden and silvery, and Maples purple and red. The Weeping Elm is a thing of grace compared to the common "escape" from the hedgerow, and the Weeping Birch, standing alone, is always a picture of loveliness. Why let the common Horse Chestnut rankly cumber the ground, when its near relatives, the Pavias, are far better fitted to fill the space available in a small garden with a town atmosphere? And of smaller trees, with blossom of every shade and leaves of every shape and hue, there is material for well-arranged effects of colour at every season of the year. In this scheme some well-chosen evergreens, ranging from silver or golden yellow to blue-black, would play a happy part, and be far more pleasant to contemplate in winter than the banked Laurels and Cypresses standing in rows like policemen, which seem now to express the average householder's idea of garden beauty in midwinter. It is never too late to mend, however, and anyone who now decides to put into his garden a few young trees of exceptionally beautiful kinds, with due attention to the contrasts and harmonies of their appearance together in later years, will be doing work which will bear a richer profit in pleasure than anything which costs so little effort at any other season.

THE USE OF COMBINATION.

Above all, one should not forget the double effect of beauty which can be achieved by the use of flowering climbers upon trees of suitable growth. An early white Rose trained upon a scarlet Hawthorn or the Wistaria showering its pale mauve blossoms with the Laburnum's golden rain make simple combinations which any one with a little thought can multiply indefinitely; and surely, when your friends note how beautifully two or more of your plants grow together, it will not lessen your pleasure to know that you had placed them together for that purpose. If we gave half the thought in December to the future arrangements of our trees and shrubs that we devote in previous months to the grouping of our bulbs and hardy plants for the spring garden, we should be laying the foundation of pleasure which would not be exhausted in any season, nor, indeed, in any lifetime. The careful use of evergreen shrubs is not sufficiently practised by gardeners.

E. K. R.

THE ROSE GARDEN.

ROSE FURBENKONIGIN.

At any time the beautiful colour of this new Hybrid Tea is remarkable, but especially so in late autumn. Most Roses take on a deeper hue in autumn, and this one comes almost a red then. It is very fragrant, possesses many of the characteristics of La France, and as a winter bloomer will be a great gain. All who force Roses would do well to add Furbenkonigin to their collection. We have received several splendid Roses from Germany, and this beautiful novelty, although not quite of the same excellence as Frau Karl Druschki or Snow Queen, which it is sometimes called, and which would have been a far better name for it, will rank as a Rose of no mean merit. How superior for garden decoration such Roses as these are to the, perhaps, more magnificent show varieties of the Mildred Grant type. We see the latter heading the list in the Rose analysis of the present year, yet as a cut-back the variety is a failure. I have not seen one respectable flower of Mildred Grant upon a two year old plant. I know it is magnificent as a maiden, and as such it will probably be grown. Those who would plant it as a bedder would be wise not to do so, but rather plant such Roses as the one under notice. The good varieties are so abundant that there is no need to have any that are at all doubtful. P.

A ROSE HEDGE.

A ROSE hedge is shown in the accompanying illustration, but it is hoped in time to train the growths along the wires that are shown. These Roses are not of the cut-back, closely-clipped nature that the word hedge signifies, but they are loosely trained so as to form a natural and graceful growth of greenery and flowers. When the Roses have made a fuller growth, covering the wires overhead, this garden scene will be still more beautiful. The association of a grass walk, a paved path with flowers in the chinks, pools of water, and boundaries of Roses is a happy one, and time will add to its effectiveness.

ROSES FOR BEGINNERS.

We have taken the following list of Roses for beginners from a pamphlet just issued by the National Rose Society, and the lists have been compiled from returns sent in this year by the leading amateur and professional rosarians of the day:—

FIFTY ROSES FOR EXHIBITION.

Hybrid Perpetuals and Hybrid Teas.—

White: Frau Karl Druschki. Creamy white: Bessie Brown (H.T.), Mildred Grant (H.T.), Kaiserin Augusta Victoria (H.T.), Alice Lindsell (H.T.), Florence Pemberton (H.T.). Pale rose or pink: Mrs. John Laing, La France (H.T.), Mrs. W. J. Grant (H.T.), Mrs. R. G. Sharman-Crawford, Caroline Testout (H.T.), Her Majesty, Killarney (H.T.). Medium red and rose: Ulrich Brunner, Suzanne M. Rodocanachi, Marquise Litta (H.T.), Gustave Piganeau, Dupuy Jamain, Helen Keller. Crimson: A. K. Williams, Alfred Colomb, Captain Hayward, Marie Baumann, Comte de Raimbaud, Victor Hugo. Dark crimson: Charles Lefebvre, Horace Vernet, Duke of Wellington, Prince Arthur.

Teas and Noisettes.—White or cream: White Maman Cochet, The Bride, Muriel Grabame, Innocente Pirola, Souvenir de S. A. Prince, Souvenir d'Elise Vardon.

Blush, pale rose, or pink: Maman Cochet, Catherine Mermet, Mrs. Edward Mawley, Bridesmaid, Mme. Cusin, Mme. de Watteville, Cleopatra, Ernest Metz, Souvenir d'un Ami. Yellow, buff, or orange: Mme. Hoste, Maréchal Neil (N.), Comtesse de Nadaillac, Souvenir de Pierre Notting, Anna Olivier, Medea.

N.B.—In the above list of exhibition Roses the varieties have been arranged under the different colours, according to the returns sent in, in their

order of merit, with a view to assist those amateurs who require only a small number of sorts.

SIXTY ROSES FOR GARDEN DECORATION.

"Summer-flowering" varieties, or those which bloom only once in the year.

Provence.—Pink: Cabbage or common.

Moss.—White: Blanche Moreau. Pink: Common or old.



A HEDGE OF ROSES.

Damask.—White, striped red: *Rosa Mundi*.
Austrian Briar.—Coppery red: *Austrian Copper*.
 Yellow: *Austrian Yellow*.
Sweet Briar.—Coppery yellow: *Lady Penzance*.
 Dark crimson: *Meg Merrilies*. White, tipped
 crimson: *Janet's Pride*.

Climbing Roses.—White: *Félicité Perpétue*
 (Evergreen), *Bennett's Seedling* (Ayrshire).
 Blush: *The Garland* (Hybrid China). Pink: *Leuchstern*
 (Climbing Polyantha). Crimson: *Crimson Rambler*
 (Climbing Polyantha), *Carmine Pillar* (Single).
 Yellow: *Claire Jacquier* (Climbing Polyantha).

Trailing Roses.—Lemon-white: *Jersey Beauty*.
 Pink: *Dorothy Perkins*.

"Autumn-flowering" varieties, or those which bloom
 both in the summer and autumn.

Hybrid Perpetuals.—White: *Frau Karl Druschki*.
 Pink: *Mrs. John Laing*, *Mrs. R. G. Sharnman-
 Crawford*. Rose: *Suzanne M. Rodocanachi*.
 Cherry-red: *Ulrich Brunner*. Crimson: *Captain
 Hayward*. Dark crimson: *Prince Camille de
 Rohan*.

Hybrid Teas.—Creamy white: *Viscountess
 Folkestone*. Pink: *La France*, *Caroline Testout*,
Killarney, *Mme. Abel Chatenay*. Crimson: *Grüis
 an Teplitz*. Yellow: *Gustave Regis*, *Mme. Ravary*.

Bourbon.—White: *Souvenir de la Malmaison*.
China.—White: *Mrs. Bosanquet*. Pink and
 rose: *Laurette Messimy*, *Mme. Eugène Resal*, *Old
 Blush* or common Monthly. Crimson: *Fabvier*.

Teas.—White: *White Maman Cochet*, *Souvenir
 de S. A. Prince*. Pink and rose: *Maman Cochet*,
Mme. Lambard. Yellow: *Marie van Houtte*,
Souvenir de Pierre Notting, *Mme. Hoste*.

Polyantha.—White: *Mme. Anna Marie de Mon-
 travel*. Pink and rose: *Cécile Brunner*, *Gloire
 des Polyantha*. Yellow: *Perle d'Or*, *Eugénie
 Lamesch*.

Japanese.—White: *Blanc Double de Coubert*,
rugosa alba.

Perpetual Scotch.—Blush: *Stanwell Perpetual*.
Climbing Roses.—White: *Mme. Alfred Carrière*
 (Hybrid Noisette). Crimson: *Longworth Rambler*
 (Hybrid Tea), *Reine Olga de Wurtemberg* (Hybrid
 Tea). Yellow and buff: *William Allen Richardson*
 (Noisette), *Gloire de Dijon* (Tea), *Rêve d'Or*
 (Noisette).

The varieties in the above list of Roses for garden
 decoration have been arranged under the different
 colours, according to the returns sent in, in their
 order of merit, with a view to assist those amateurs
 who require only a small number of sorts.

ROSE AIMEE VIBERT.

How beautiful this fine old Rose is in September,
 and it goes on flowering right into the late
 autumn. It is a great success when budded upon a
 short, medium, or tall standard Briar. I met with
 one last summer in a cottage garden and it was the
 picture of health, the fine, glossy green foliage
 contrasting so admirably with the bunches of snow-
 white blossom. Upon a very tall stem this Rose
 looks well, and it quickly develops a very large
 head. It has not exactly the weeping habit of the
 Ayrshire Roses, but in time the weight of the
 branches causes them to bend over so that the stem
 is partly hidden. It is a Rose that should be
 afforded plenty of space, for then its fine propor-
 tions are seen to the best advantage. Naturally,
 such a fine climbing is suitable for planting against
 a pillar. It does not run up very high, but it
 becomes dense at the base, and therefore the old
 and useless wood should be well thinned out,
 retaining their full length the one and two year
 old growths. P.

WICHURAIANA ROSES AS EVER- GREEN CLIMBERS.

It is quite refreshing to come across the glistening
 foliage of some of the best of this group in Novem-
 ber, and more especially when the plants are
 drooping their long trails gracefully from some
 spurred Larch poles or other supports. That they
 will take the place of Ivy in many cases seems to
 be evident. I would even recommend them to be
 planted upon the same pillar as certain climbing

Tea and Noisette Roses, mainly for the evergreen
 effect they would give. There would be nothing
 incongruous about such pillars, and a little skill
 in regulating the growths would prevent undue
 encroachment of the wichurianas. Some indi-
 viduals even lament that the wichurianas are so
 aggressive, but surely the pruning knife can regu-
 late this without in any way robbing the plants of
 their beauty. Where they encroach too much
 upon the rock garden or rootery the growths may
 be pruned hard back, as new ones will appear with
 foliage even more glistening by reason of their
 greater vigour. Just now *Jersey Beauty*, *Rene
 André*, *Alberic Barbier*, and *Dorothy Perkins* are
 very charming with their varnished-like leaves,
 and some of the newer sorts, such as *alba rubri-
 folia*, are none the less attractive. This latter
 yields also a neat, waxy-petalled flower like a
 miniature *Hon. Edith Gifford*. *Edmond Proust*
 reminds me of *Perle d'Or*, and *Elisa Robichon*
 has flowers almost equal to those of a show bloom.
 If anyone has an old Thorn bush, isolated and
 in a prominent position, let him plant one of
 these wichuriana Roses in a prepared hole close
 by it, and in a year or two this bush will be very
 graceful. There are many positions upon a large
 estate that could be beautified with the help of
 these charming evergreen Roses. P.

THE FRUIT GARDEN.

APPLES FOR PROFIT.

TO those contemplating the planting
 of Apple trees for profit, apart
 altogether from the pleasure or
 interest which attaches to possessing
 a number of varieties, the past
 season, by reason of the bountiful
 crops we have had, has taught a valuable lesson
 as regards the selling value of some varieties of
 Apples over others. Although the Apple crop
 has been a heavy one, the growers have profited
 little, in consequence of prices ruling so low.
 From many parts of the country deplorable
 accounts have been heard of low prices. In
 many cases they were so low as not to cover
 the cost of gathering and marketing. But one
 variety has been a conspicuous exception. I
 need scarcely say that that variety is *Cox's
 Orange Pippin*. I was told a few days ago by
 one of the largest salesmen in Covent Garden
 that although there had been a glut of Apples
 in the market, and a slump in price in conse-
 quence, that *Cox's Orange Pippin* had main-
 tained a high price throughout the season, and
 that good samples at the present time are
 making from 16s. to 20s. per bushel. I saw
 this variety offered for sale in a West End
 fruiterer's window at the price of 3s. 6d. for a
 basket of eight! A gentleman about to plant
 some Apple trees for profit this winter made it
 his business to enquire from experts in fruit
 culture which was the best Apple to grow for
 sale. Each one, without exception, recom-
 mended *Cox's Orange Pippin*, and I earnestly
 endorse their recommendation.

Those about to devote land to the culture
 of Apple trees should plant this variety by the
 acre. There is no other Apple, home-grown or
 imported, which can approach it in quality or in
 market value, and there is no danger—at least,
 in our lifetime—of the supply ever being larger
 than the demand. It does not grow into a
 large tree as quickly as some sorts, and for this
 reason the trees may be planted closer together
 than those of more robust habit. Eighteen feet
 apart each way (measuring between tree and
 tree in the row, and the same between the rows)
 in the case of orchard standards or 9 feet
 between bush trees is sufficient. If the fruit
 is harvested with care and kept in a cool fruit
 room that is not too dry, this Apple will remain

in good condition for table and market for at
 least four months, from October to February.

OWEN THOMAS.

HARDY FRUITS IN SEASON.

PEAR KNIGHT'S MONARCH.

THIS Pear is, perhaps, the least known of all the
 really excellent and hardy Pears, because it is of
 such ill-favoured appearance that one rarely sees
 it upon the exhibition table. Few Pears vary more
 in different seasons than this variety, but this year,
 owing to the good summer, it is of great excellence.
 It is not merely that the flavour is indifferent in an
 adverse season, but many of the fruits shrivel
 instead of ripening. It is a good bearer, and forms
 a handsome pyramid, though the growth is thin
 and wiry. It succeeds well upon the Quince stock,
 but is usually double grafted to ensure early fer-
 tility. It has one remarkable characteristic which
 makes it ill adapted for a standard, and that is its
 habit of dropping its fruit from the end of August
 onwards. This falling is not really premature as a
 rule, but is owing to the uneven ripening of the
 fruit, some being ready to gather the beginning of
 September and some not till the middle or latter
 part of October. It is recommended that the fruits
 should be gathered as they are ready, at intervals
 of a week from the early part of September onwards.
 The result is a very extended season, more so than
 that of any other dessert Pear, as it can be had in
 good condition from early November to the end of
 February. The Pear is of medium size (sometimes
 large from pyramids), russet in appearance, and
 varying in shape. It was raised by Mr. Knight
 early last century, and called the *Monarch* because
 he believed it to be the best of all Pears then in
 existence. It had a great vogue, and another Pear
 was largely sent out under the same name, which,
 strange to say, has the same habit of dropping its
 fruit. This spurious variety (some say there are
 two or three) is inferior in flavour to the true one,
 though not without merit. It is easily distinguished
 from the true one by the smaller amount of russet
 upon it (often scarcely any) and by the young
 shoots, which in the spurious variety are yellow,
 but in the true a dark violet. Reliable nursery-
 men can be trusted nowadays to send out the true
 variety, but it is the old standards fifty or sixty
 years old that are so often untrue, the spurious
 variety making a specially fine tall tree.

APPLE THE QUEEN.

Of Apples introduced during the last thirty years
 this has probably attained as great a vogue as any,
 at least to judge by the frequency with which it is
 seen upon the exhibition table. It was raised in
 Essex, and the raiser tells me that the crops from
 the original tree have paid for the freehold of the
 ground it occupies many times over. The tree is a
 good grower, and, though very fine fruit is pro-
 duced on dwarf trees (it makes a spreading bush),
 it is better adapted to the standard than any other
 form because of its tendency to produce the finest
 fruit upon the previous year's wood, often at the
 very tips of the shoots. For this reason, too, it
 should not be planted in too exposed positions or
 much of the fruit will be blown off. The falling of
 the fruit is rather an objectionable characteristic,
 as this often begins the latter part of August,
 though the main part of the crop will remain upon
 the tree till the third or fourth week in September.
 It is a very fair cropper, though the manner of
 bearing and the somewhat slender character of the
 growth prevent a tree carrying such a heavy crop
 as some varieties do. It is of spreading growth,
 and the branches naturally get weighed down still
 further by successive crops. It is one of the earlier
 varieties to come into flower, and therefore is not
 well suited for low-lying localities. It began to
 flower last spring on the 3rd of May, *Scarlet
 Nonpareil* beginning on the 7th, and *Lemon Pippin*
 on the 9th. It is a light Apple, a bushel not
 exceeding about 40lb. Thus it shrinks very much
 in cooking. It should have a slow oven for baking
 or it will burst all to pieces. It is very juicy, and
 owing to its lightness of texture cooks very easily.
 It is at its best for cooking during October and
 early November, getting very frothy in late

December, though this is regulated a good deal by the time of gathering. If allowed to hang till the middle or latter part of September it makes a very fair dessert Apple in October in some seasons for those who like a rather acid Apple, being very tender and juicy. It can be broken into quarters with the greatest ease, and the skin is very thin. For those who want an Apple for mixing with Plums or Blackberries for jam there is none more suitable than this, owing to its attaining a good size early in the season and boiling down very easily.

ALGER FETTS.

NOTES ON HARDY PLANTS.

NIEREMBERGIA RIVULARIS.

THIS hardy perennial came from Argentina in 1866; it is a creeping plant, roots abundantly, and forms dense masses of white Convolvulus-like flowers $1\frac{1}{2}$ inches across borne on slender stems. In its native country, on the Plate River, it grows in great abundance by the riverside, but in this country it does not do well in damp places. Good strong loam suits it best, and a full south position, but a little peat and leaf-mould added as a top-dressing will be found very beneficial. It is a surface-rooting plant, and requires this little addition to help the young growth. *N. rivularis* is a fine subject for planting in a south position on sandstone or gritstone rockwork, where it should be in broad patches to obtain the best effect. This plant is of easy cultivation when planted in the right position, and deserves more notice than it at present receives. The photograph is of a patch covering nearly three square yards in the nurseries of Messrs. J. Backhouse and Son, Limited, York.

RANUNCULUS AMPLEXICAULIS.

Those who are seeking for a choice plant for the cool rocky or alpine house should try this *Ranunculus*, one of the loveliest of spring flowers, and surprisingly effective when well grown. The leaves are Plantain-like, the stems branching and 1 foot or more high, bearing pure white flowers as large as a florin very freely. It is a difficult plant to treat in open, exposed places, and the long white roots clearly indicate love of moisture. One could grow it well with Ferns, *Narcissus triandrus*, or *N. Bulbocodium*. It delights in peat or leaf-soil, and when pot-grown should have plenty of root-run, for it is impatient of drought. I have had it in effective association with *Shortia galacifolia* and *Galax sphylla*, the combination being exceptionally pleasing in flowering time, whilst the site is never bare when the *Ranunculus* dies down. It is an old-time plant hailing from Southern Europe, yet rarely in evidence in the best gardens. G. B. M.

CORRESPONDENCE.

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

POTATOES TO EAT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—There seems a consensus of opinion that Windsor Castle and Up-to-Date Potatoes are from the generally accepted standpoint of quality very good indeed. Mr. Engleheart says it is only a depraved taste that accepts them. I read on page 373 of the floury Potato that it is used "as a sponge to mop up gravy." On the contrary, the lover of a good floury Potato does not allow it to come in contact with gravy, but has it either boiled or baked in its skin, cuts it sunder, and eats it with the addition of pepper, salt, and a little butter. I was, unfortunately, unable to go to the Potato show, and cannot say anything as to whether, in judging the exhibits, favour was shown to tubers of gigantic rather than of moderate size. I have never favoured such ruling, and do not remember ever coming in contact with a good judge



NIEREMBERGIA RIVULARIS IN THE YORK NURSERIES.

who did; at the same time it must be remembered that one Potato weighing, say, 16oz. may be quite as good in quality as another at 8oz. I recollect staging on one occasion a lot of Syon House Prolific, each tuber being either just a little over or under 15 inches in circumference. They were of splendid appearance and equally good to eat. E. L. B.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Without going into the merits or demerits of the Potato show at the Crystal Palace as an educational factor (although I would mention in passing that I think the National Potato Society is doing more valuable work in other directions), I should like to say a word or two with reference to the opinions that have been expressed in THE GARDEN upon the quality of yellow and white-fleshed Potatoes. It seems to me that the choice between these is largely a matter of individual taste, and the fact that one person may consider a yellow flesh Potato to be immeasurably superior to one with a white flesh does not necessarily make the latter inferior, and *vice versa*. Personally, I prefer the white-fleshed tuber, as I think the majority of Englishmen do. My recollections of Potato salads in France, and during a two years' residence in that country I must have partaken of many, are not such as to make me look back with pleasure upon a dish that figures largely in the menu of the French. The yellow-fleshed Potatoes are cut into slices, served cold, and covered with salad oil. I never could bring myself to appreciate them. It is a fact that some persons (whose cultured taste cannot be called in question) prefer Gros Colmar Grape to the Muscat of Alexandria, but for that reason I should hesitate to say that Gros Colmar was a better flavoured Grape than the other. Or to take the comparison one step further, some people prefer an Apple that has an acid flavour to that of sweeter taste, yet this does not alter the value of either the one or the other. So, if some prefer a Potato whose flesh is of the consistency of flour, while others like the tuber whose flesh is wax-like, it seems to be a question of the taste of the individual. I fail to see because the white-fleshed tuber has triumphed that it proves the standard of public taste to have fallen. P. H.

TROPÆOLUM SPECIOSUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—So many failures occur in trying to establish *Tropæolum speciosum* that a successful instance, and the means used, may be of interest to your readers. Your correspondent "W. S." (page 350) speaks of "obtaining tubers," so that one concludes that the plants procured were loose pieces of the

creeping underground stem. This is precisely where the mistake is generally made. Although quite a nuisance in places where it luxuriates, this brilliant Flame Flower is very impatient of disturbance. That the plants made "nice growth" the first year proves nothing, except that the "tubers" were vigorous and healthy, and that the growth was the result of drawing upon the nutriment stored in the fleshy stems during the previous year. Conscientious nurserymen, with a reputation to sustain, do not supply loose "roots" of plants of this character, and no doubt "W. S." would experience no difficulty in procuring plants of *Tropæolum speciosum* established in pots. In Messrs. A. Bee and Co's nursery at Neston, Cheshire, this brilliant climber is growing vigorously in two places. The first is in the usually recommended position—at the foot of a north wall, where the plant flowers and produces quantities of seeds. The second is on a raised bank in the herbaceous border in full sun, where the growths cover an area 8 feet or 10 feet in diameter. Here twiggy branches are thrust into the ground, and to these the multitude of growths cling. Though not attaining a height of more than from 3 feet to 4 feet there is no question as to the vigour of the annual growths. E. H.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I can confirm Mr. J. R. Jackson's statement (page 317) that the Flame Flower is to be met with in the best of health in certain gardens in the south-west. I have never seen it doing better, even in Scotland, than in a garden about two miles from Plympton, South Devon, where large plants occupy a north wall in company with *Lapsagerias* (red and white) and *Berberidopsis corallina*. In the same garden another plant of this *Tropæolum* is doing well against the trunk of a very large and old Silver Fir, and is now climbing among the branches. Failures, however, I fear, exceed successes in the south of England. It grows with me, but entirely lacks the vigour of the specimens I have alluded to. Overhead evergreen shade appears to suit it to perfection. In a garden that I know there is a long hedge of *Berberis stenophylla* edging a lawn. The *Tropæolum* was planted at the roots of the *Berberis* along the entire length of the hedge, and has increased to such an extent that in the summer, after the flowers of the *Berberis* are over, the whole hedge, about 10 feet in height, is a blaze of vermilion. In a friend's garden numbers of tubers were carefully planted in prepared soil in several selected spots and well leached and watered in dry weather. A few tubers being left over, a cut was made with a spade at

the base of a Rhododendron bush, the tubers inserted into it, stamped upon, and promptly forgotten.

In spite of the care lavished upon them, all the plants furnished with special soil and given apparently favourable positions died in the course of two years, but in the third year the owner of the garden described a trail of scarlet on a Rhododendron, and upon examination found that the superfluous tubers, that had been hastily planted and forgotten, had not followed the bad example of their more carefully nurtured relatives, but had made continuous growth until their shoots emerged at the top of the bush. From that time they have made continuous progress, and now cover a group of Rhododendrons for many square yards.

S. W. FITZHERBERT.

VITALITY OF SEEDS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—You may care to publish the following letter which we recently addressed to the editor of *The Times*: "It may interest you to know that Captain Scott took out a collection of vegetable seeds in the steamship *Discovery* in 1901 with a view to their being found useful during his stay in southern climes. Some unused portions of these seeds have lately been returned to us by Dr. Koettlitz, botanist to the expedition, and we are surprised to find so little deterioration in the germinative power. Out of 100 seeds our botanist reports that Radish produces 92 per cent., Lettuce 85 per cent., Turnip 96 per cent., Onion 71 per cent., Mustard 96 per cent., and Cress 92 per cent., and this notwithstanding the fact that they have passed twice through the tropics and have been exposed to the low temperature of 40° Fahr. (72° below freezing point). After passing through such vicissitudes this enduring vitality can only be put down to the fact that the seeds were specially dried according to the system we employ with all garden seeds intended for the tropics. By our peculiar process excess of moisture is extracted without injury to the germ, and we find when certain seeds are so treated their tenacity to life under the most varying conditions is extraordinary. We also pack such seeds in hermetically sealed receptacles, from which the air is thoroughly exhausted. Photograph No. 175 in the expedition's exhibition, now open at the Bruton Galleries, illustrates some boxes of Mustard and Cress in full growth in the most southerly point at which English seeds have ever sprouted.

"High Holborn. JAMES CARTER AND CO."

GARDENING OF THE WEEK.

FLOWER GARDEN.

A BRIGHT CORNER.

IN some gardens during December one looks in vain for a touch of bright colour. In its season the spring garden is gay; throughout the summer and autumn the flower-beds and herbaceous borders are full of showy flowers. But after the frost has killed the Dahlias and the deciduous shrubs have lost their autumn tints, there ensues what may well be termed a close season until the early bulbs come in. True there are a few so-called winter-flowering shrubs, but it is only in mild seasons that they are valuable. This year the Winter Sweet has had all its early buds destroyed, and it will be some time before the *Laurustinus* is in flower. In the woods on the outskirts of the garden there is often more to gladden the eye. The gales have stripped the deciduous trees of their last remnant of autumnal colouring, but this only serves to disclose more fully the glorious red bark of the tall Scots Firs—which, by the way, are not Firs at all, but true Pines, although the first name comes much more readily. When lighted up by the setting sun these trees literally blaze with colour and warmth. Below, the Hollies bear an unusually large crop of berries, which the voracious birds are now rapidly depleting. Admittedly beautiful as are many of the

SILVER AND GOLD-LEAVED FORMS

and those which bear yellow berries, yet none of them can replace the common Holly, which, with its bright berries and cheerful shining leaves, is so much in request at the present moment. At the margin of the wood are clumps of the Pincushion or Spindle Tree. The poorer the soil the more freely it fruits. Its leaves have long changed colour and fallen, exposing the clusters of scarlet fruits from which project the orange arils of its seeds. In vacant spaces we have planted clumps of the common Fuze, and our picture is now complete. On a smaller scale much of this brightness may easily be reproduced in the garden. Although only native shrubs,

THE FURZE AND SPINDLE TREE

are valuable, and to the former should be added the double-flowering variety. In the background several of the berry-bearing Thorns must find a place, and then must come a large clump of *Cotoneaster Simonsii*. This most valuable shrub may be termed sub-evergreen, for it rarely loses all its leaves during the winter. It is probably the latest shrub to turn colour, and just now, even though most of its red berries have gone, the mixture of bright green leaves at the extremities of its branches and the scarlet ones in the body of the shrub makes it strikingly beautiful. The trailing *C. microphylla* will be of great use towards the front of our group, and Loudon's advice of "grafting it standard high on the Thorn" might well be followed. There are several species of *Rosa*, especially the Sweet Briar, which if kept pruned to compact bushes produce masses of brightly coloured hips, and *Pyrus japonica* if treated in the same manner will generally flower fairly well during the winter. There are several *Berberies* of value for our purpose. The two best are probably *Berberis Aquifolium* and *B. vulgaris*. In any vacant spaces in the foreground a few clumps of *Physalis Franchetti* will add greatly to the effect.

A. C. BARTLETT.
Pencarrow Gardens, Bodmin.

INDOOR GARDEN.

AMARYLLIS.

KEEPING the bulbs of these too dry whilst at rest and allowing them to shrivel is often the cause of their failing to produce flower-spikes, though during the winter months no more water than is necessary to keep the bulbs plump should be given. The temperature in which they are situated should range about 45°, and the atmosphere should be perfectly dry and sweet. Overhaul occasionally the stock of bulbs, and select from them any that are beginning to develop their flower-spikes, and remove these to a temperature of 55° to 60°. The dry soil about their roots should be well soaked with water, and the atmosphere of the house in which they are placed should be kept moist by syringing. Stimulants in the shape of liquid manure, as well as a little of Clay's Fertilizer, will promote a robust growth, but in no case apply it unless root-action be free and healthy. Those bulbs that have been longest at rest will produce their flower-spikes the first, and it is advisable periodically to inspect the stock.

WHITE CHRYSANTHEMUM FLOWERS

cannot during Christmas time be produced in too great a quantity, and as the variety *Niveus* at the present time is producing flowers in abundance, it is recommended as the best to grow for the purpose. Obtain and propagate the cuttings as soon as possible, and what are called sucker or root cuttings are the best, as the leaves of plants propagated from stem-cuttings frequently turn yellow and fall off during the growing season. Excellent dwarf plants are produced by striking the tops of shoots early in June, three to five, in a 4½-inch pot. These after being rooted should remain, and be grown until they flower in the same pots.

THE AZALEA HOUSE.

Although it is unwise to allow the temperature to fall below 35°, it is advisable not to maintain a greater warmth at this time than 40° to 45°, with plenty of air. Care also must be exercised in

affording the plants water, as keeping the soil about their roots too wet will encourage growth, which if allowed to advance would seriously cripple the prospect of the flowers opening satisfactorily, and if the new growths be nipped out, which is often done in the case of exhibition plants, the general health of the plants would suffer. Remove those plants the flower-buds of which are prominent to a warmer temperature to bring them early into flower, a strong heat being undesirable as having a tendency to originate thrips.

HERBACEOUS CALCEOLARIAS.

To retard their flowering until May and June in the following year keep the plants as long as possible in the cold frame, their removal to a shelf in the cool house being essential only when the weather is so severe as to necessitate their being kept in the dark through protecting them from frost. Plants in a more advanced stage should be given their final shift into flowering pots, and their surroundings afterwards should be light, moist, and airy.

SCHIZANTHUS.

No matter of what variety the plants keep dwarf and grow more sturdily when they are given a position near the glass in a well ventilated and cool house. Stimulants are unnecessary until the pots are getting full of roots.

J. P. LEADBETTER.

Tranby Croft Gardens, Hull.

FRUIT GARDEN.

WINTER CUCUMBERS.

DURING this month and the next it is not easy to keep a constant supply of fruits. The plants should be encouraged to grow as freely as possible. As soon as fresh roots appear on the surface give light and rich top-dressings of good fibrous loam, leaf-mould, and Mushroom-bed manure, the same temperature as the bed, with an occasional sprinkling of Thompson's Vine Manure. Do not allow the night temperature to fall below 65° on cold nights, and when severe weather prevails cover the pits at night with mats or other material. Give occasional waterings of tepid liquid manure, and a little air whenever it can be done with safety. Thin and regulate the growths and guard against over-cropping. If good pits are not at command preparations should be made for making up a hot-bed of fairly dry litter and leaves, about 5 feet deep and 4 feet wide. When the bottom-heat has declined to 90° place mounds of soil 4 feet apart and sow seeds in these; a little air should be admitted day and night. Seeds should also be sown of some approved variety in 3-inch pots to succeed the winter fruiter. Plunge the pots in a hot-bed of the temperature of 75° until the seedlings are through, when they should be placed in some position near the glass. These should be planted out when they have made three leaves, be grown in a moist atmosphere, and allowed to make free growth.

POT STRAWBERRIES.

The earliest plants which were recommended to be started last month are now beginning to grow. When they approach the flowering stage they should be moved to the lightest part of the house. Fertilise the flowers carefully at midday when dry with a soft camel-hair brush. This may not be necessary with strong trusses and later plants, but is best carried out with the earliest flowers. The night temperature should range from 50° to 55° at this stage, but not exceed the latter figure until the fruits are set. Fresh air is most important, and should be given on all favourable occasions, but avoid draught. Dry heat is most injurious, and moderate moisture should be afforded by damping and syringing. The roots must be kept moist but not too wet. One or two mild fumigations should be given before the plants come into flower. Succession plants should be introduced every fortnight, or according to accommodation and the demand. The plants must be forced slowly at the start and syringed carefully.

PLUMS AND CHERRIES.

The pruning and cleaning of these should be done. Very little pruning will be necessary if proper attention was given to pinching during growth.

Carefully wash the trees with two ounces of carbolic soft soap to the gallon of water, and top-dress the borders with good loam, lime rubble, and bone-meal, removing all the surface soil before top-dressing. Keep the house cool until forcing commences, which must be done most carefully and gradually.

Impney Gardens, Droitwich. F. JORDAN.

ORCHIDS.

CATTLEYA TRIANÆ.

The buds are fast developing, so it is necessary to place the plants so that plenty of light may reach them. Plants that are flowering require more water than they have been receiving since the completion of growth. When the flowering season is over keep the plants drier again. The more dormant they can be kept till longer and brighter days are here the better.

C. quadricolor and *C. percivaliana*.—The same treatment as advised for *C. Trianæ* will meet the requirements of these. Flowering with the former they help to brighten up the houses during the dull month of January.

C. maxima is now passing out of flower, and will require scarcely any water at all till the early spring. Producing in November and December flowers of a pleasing shade of lilac, it deserves to be more widely grown.

CATTLEYA INTERMEDIA AND VARIETIES.

The new growths have now started, yet it is not advisable to water too freely. As soon as we get the turn of the year, when the supply of water may be increased to advantage, the growths will lengthen out rapidly and become much stronger and harder than if they were encouraged to grow at this season. Often they make two growths a year; in that case they do not rest after the flowering season is over, and those that have already made one growth since flowering last March and April will scarcely have begun to grow yet, so the same treatment applies. The growths that give the best flowers are those that are made in February and March; at that season growth is very quick, and the flower-buds appear often before the new pseudo-bulb is completed.

SOPHRONITIS GRANDIFLORA.

This charming cool house plant is now brightening its quarters with its brilliant flowers. Place them where full light reaches them. Little direct watering is required till the flowering season is over.

ODONTOGLOSSUM ROSSII AND O. CRIVANTESII.

These two dwarf species are now throwing up their welcome flowers; sufficient water is necessary to keep the compost just humid. They are best suited when suspended in the cool house where all light and sunshine may reach them.

THE ODONTOGLOSSUM HOUSE.

Many of the inmates of this house are now throwing up their flower-spikes. As soon as they are visible the question of whether it is advisable to let this or that plant flower should be decided, always bearing in mind that a weakly plant not only does not give characteristic flowers, but the ultimate growth will be retarded for some time; whereas by waiting till the completion of the next growth the plant would have recuperated and would then give better flowers. W. P. BOUND.

Gatton Park Gardens, Reigate.

KITCHEN GARDEN.

BROCCOLI.

The earliest varieties are turning in freely, and should be frequently inspected. Although there has been no severe cold yet to damage the plants the heads that are fit for use soon become blackened by frost. Let all those fit for use be lifted and

placed close together on a south border, or in some such sheltered position, where they can be easily covered with mats, straw, or Bracken. Snow's Winter White is the variety now fit for use, and this should keep up the supply until well through the first month of the New Year. In exposed and damp gardens the whole crop may have to be heeled over, but this is not generally necessary except in winters of exceptional severity.

CAULIFLOWER PLANTS IN FRAMES.

There must be no coddling of these, and if the smallest plants were chosen when placing them in their winter quarters they should still be dwarf and stocky. Give plenty of air on all occasions, except during very hard frost. Air should be left on the frames by night also. Damp will be the greatest enemy. Go carefully over the plants at intervals of a fortnight, removing all the decaying leaves and slightly stirring the soil. No water will be required during this and the coming month.

Frames containing Lettuce and Endive, from which supplies are being drawn, may be filled up

the house kept quite dark. Sprinkle the roots night and morning, and syringe the whole structure frequently.

Hopetoun House Gardens, THOMAS HAY.
South Queensferry, N.B.

MISCELLANEOUS.

THE NEW SUCCULENT HOUSE, KEW.

DURING the past summer the last of the older public greenhouses, No. 5, built principally of wood, has been removed. Although a much more imposing structure, the new house is built on the same foundations with their length and width, the former 200 feet and the latter 30 feet. The chief differences in the new house are in height and much larger panes of glass. The old house was 15 feet in height, and by the addition of a lantern, 8 feet 6 inches in width,



THE NEW SUCCULENT HOUSE AT KEW.

again with plants from the borders. These two salads at this season are very liable to decay from damp, and should therefore be inspected very frequently. Admit air freely and remove the lights in dry, mild weather. Mustard and Cress must be sown almost weekly at this season. The boxes should be placed on a shelf near to the glass roof. Lettuces may also be sown thickly in boxes for cutting over. Roots of Parsley if carefully lifted may be put in boxes, and if placed in a warm house will soon augment the supply.

FORCING HOUSE.

Continue to keep up supplies of Rhubarb and Seakale. These will now after the frost force more freely. Seakale may be placed a few inches apart in the Mushroom house. The strong heat of the stove will be no longer required. All the roots that are intended for forcing should be got out of the ground without delay. They may be placed at the bottom of a wall and covered with leaves or stored in a frost-proof shed. See that a moist atmosphere is kept in the forcing house, and

running the whole length of the house, it is now 17 feet 6 inches in height. This will permit of much larger specimens being grown in the centre. The lantern will also allow of better ventilation. Built in 1855, the old house stood for fifty years, and in spite of this fact some of the wood—Mahogany, Pitch Pine, and Deal—was as sound as when the house was built. The framework of the new house is of iron, and the wood, with the exception of the sills, which are Oak, is Deal. Patent copper glazing has been used on the roof. In the "Tender Dicotyledon Hand-list of Plants" the following note in reference to the old house appears: "Not without its faults, for its direction being north and south, and the angle of the roof being low, the unnecessary massive iron girders prevent the rays of the sun freely reaching the plants. Notwithstanding this defect, which, owing to the increase of the London smoke, has become more obvious of late years, the contents of the house No. 5 are one of the most striking features at Kew."

As some of the plants require a warmer temperature than others, one half of the house is kept

5° to 10° warmer. Naturally the end nearest the heating apparatus is the warmer; with this and the ventilators a variation in temperature of from 5° to 10° is easily maintained, without a partition in the house to spoil the view from end to end. One of the principal features of the cool end are the Agaves, numbering over 130 species and varieties. The largest specimen is *A. atroviridis*, which is 10 feet through, and almost as much in height. Other interesting plants are *Dasylyron acrotichum* 12 feet in height, also a smaller plant of the same species close by flowering at the present time; *D. quadrangulatum*, 10 feet high and 12 feet across; and *Beaucarnea recurvata*, 15 feet in height, with a peculiar swollen woody base. Planted out are two groups of *Protea cynaroides*, which were raised from seed in 1883. It is here also that the Date Plum (*Diospyros Kaki*) fruits annually. Several plants of *Pestudinaria elephantipes* (the Elephant's Foot or Tortoise Plant) attract considerable attention. The side stage on the east side is almost entirely filled with the natural order *Crassulaceae*. On the roof near the centre of the house is a large plant of *Cereus triangularis*, one of the night-flowering Cacti. The warm half of the house contains a more varied collection. Quite a large number of genera are represented, to say nothing of species; Aloes, over 100 species and varieties; *Gasterias*, *Cereus*, *Euphorbias*, *Opuntias*, *Phyllocactus*, &c. The illustration is from a photograph taken near the middle of the house looking along the east side of the warm end. In the foreground are several very fine specimens planted out in a rockery. The plant at the corner of the rockery almost in the centre of the illustration is the Turk's Cap Cactus (*Melocactus communis*), received from Antigua in 1902. A little to the left of this is *Echinocactus cylindricus*. The tall plant immediately behind is *Cereus giganteus*, received at Kew in 1895, when it weighed 4wt. The large plant in the left-hand bottom corner is *Echinocactus Gnesoni*. These are only a few of the gems of this most interesting house, often spoken of by the men who work or have worked in it as the chamber of horrors.

A. O.

THE BLACK CURRANT GALL-MITE

EXPERIMENTS have been carried out from time to time with a view to discovering a cure for the Currant Gall-mite infestation, which is dealt with in the Board's Leaflet No. 1. The subject has recently been investigated by Mr. W. E. Collinge, M.Sc., Lecturer in Zoology at the University of Birmingham. In 1901 Mr. Collinge sprayed some small bushes, which were badly infested, twice a week with a solution composed of: Sulphur, 2lb.; soft soap, 25lb.; water, 50 gallons. The sulphur was made into a gruel with water, the soap mixed with 5 gallons of boiling water, and the two mixtures added together and well stirred, after which sufficient water was slowly added to make 50 gallons. The results obtained were very encouraging, mites being found on fresh buds only on one bush in 1901. In 1902 no mites were discoverable on the bushes, but being near some infested bushes they were again sprayed. In 1903 they were still free of the mites, and also early in the present year no trees bore abnormal buds. The experiments were on a small scale, but it is proposed to continue them on a larger scale.

A small amount of success has also been obtained by hand-picking infested buds in small isolated plots, but it is strongly recommended that all infested stock should be burnt, and the utmost care should be taken only to replace them with cuttings after conclusive evidence that these are not infested. The Board will be glad to receive any information concerning experiments made with the spray mentioned above.

IMPORTATION OF PLANTS INTO CAPE COLONY.

NEW regulations as to the importation of trees, plants &c., into Cape Colony are gazetted under Proclamation No. 138, 1904 (Cape Colony), and are to take effect from September 1, 1904. These

regulations are substantially similar to those noted in the Board's Journal for September, 1903, page 260, but with some extensions. The importation of coniferous plants, or any portion thereof, with the exception of seed, is absolutely prohibited, as is also timber with the bark on, except scaffolding poles shipped from the Baltic or from Canada. Articles subject to these regulations introduced into the Colony by post will be intercepted and examined by an officer appointed for the purpose; and if found infested with any noxious insect or plant disease must be cleansed or destroyed. Ordinances have also recently been passed both in Southern Rhodesia and the Transvaal with a view to regulating the introduction of plants likely to disseminate insects.

In a memorandum* explanatory of these revised plant import regulations, the Cape Government Entomologist observes that the conditions in South Africa, more than in most parts of the world, justify drastic restrictions on plant imports as a means of minimising the introduction of fresh plant pests. It is a comparatively new country, from an agricultural standpoint, with sea connexion only with the rest of the civilised world. The oversea trade in living plants is still small, and there is no reason why the country cannot grow sufficient nursery stock of all kinds to keep pace with its requirements. Above all, the introduced pests of the orchard and vineyard are comparatively few in number, and some of the worst are still restricted in their occurrence. Cape Colony aspires to be a fruit and wine-exporting country, and therefore the exclusion of fresh pests is a matter of vital importance.

The general principle of the plant import regulations in the past has been the inspection of imports at the landing place, and their suitable treatment should they be found to be accompanied by any insect or plant disease "the introduction of which would be prejudicial to the interests of the Colony." Regulations based on this principle alone have, it is observed, a very grave weakness, which is the utter impracticability of adequately examining for insects, plant consignments of any size without subjecting them to ruinous treatment through exposure and delay; inspection, moreover, is no safeguard against most plant diseases.

These regulations have now been materially strengthened by the absolute prohibition of certain plants which are considered especially dangerous, and by restrictions on the importation of other kinds. The fumigation of all trees and woody plants is now required, and fumigation chambers are provided at the three principal ports. The fumigation is with hydrocyanic acid gas, and is a precautionary measure against inconspicuous scale insects.

WHITE ROT OF VINES.

THIS disease is due to the presence of a minute parasitic fungus called *Coniophyrium diplodiella*. On the Continent it attacks vines growing in the open air, and during recent years has frequently been met with on vines growing under glass in this country.

The fruit is the part most frequently attacked, and in severe cases the fungus spreads from the stalk of the bunch of fruit to the branch from which it springs; the foliage is unaffected. When once established, the disease spreads rapidly, and usually every Grape on a bunch becomes diseased, owing to the numerous minute spores of the fungus being conveyed by rain, syringing, &c., from diseased to healthy berries. During the first stage of disease the berries become pale brown in colour, and soon commence to shrivel, but do not fall. At a later stage, when the shrivelled berries have become dry, the skin is covered with minute whitish pimples representing the fruit of the fungus.

When the stalk of a diseased bunch is attacked, the fungus often passes on to the branch, where it forms slightly depressed areas, which are at first brownish in colour, but afterwards studded with the characteristic white pustules of fungus fruit. The diseased patches may extend for several inches

down one side, or the branch may be completely girdled by a zone of diseased tissue, and if this is the case that portion of the branch above the injured zone soon dies. In vineyards the disease is most injurious during seasons of great humidity accompanied by warmth. Under such conditions one-quarter to one-third of the crop may be destroyed within the space of a few hours.

The best remedy is to remove and burn all diseased bunches of fruit, and spray every part thoroughly once every five days with a rose-red solution of permanganate of potash.

If the disease is of recent origin and confined to the bunches of fruit, the above treatment will suffice. If, however, the disease has spread to the branches, its presence will be indicated by the slightly depressed whitish patches on the bark already mentioned. All such diseased branches should be cut out, as spraying will not check the disease on permanent parts of the vine.

BOOKS.

Proceedings of the Second Annual Meeting of the Chrysanthemum Society of America.—This interesting publication has only recently been issued, although it deals with the society's meeting in Chicago on November 13, 1903. For three years in succession the American society, following somewhat on the lines of the French National Chrysanthemum Society, has held a show and convention in conjunction with a local horticultural society, and apparently with most satisfactory results. Interest, which had been waning in the popular flower, has thus been revived, and the American growers have received considerable encouragement to continue their work. Mr. Herrington, the president, seems hopeful for the future, and his presidential addresses on each occasion proclaim him to be a zealous enthusiast for the advancement of the flower which has been the special care of his society. The volume recently issued is a creditable publication in every sense of the word, and somewhat similar in style to its predecessor. It contains an official list of all the varieties, American or foreign, known in the States, and has been compiled by the former secretary of the society, Mr. Elmer D. Smith, who is also the author a little pamphlet entitled "Smith's Chrysanthemum Manual," issued earlier in the year. It is some years since there was anything like an official American list of Chrysanthemums, and the present is certainly a welcome addition to the literature of the flower. There are two lists, one being confined to varieties; of American origin and the other to foreign varieties, the names both of raiser and importer are given, as also the date when introduced into America. The description is brief, being limited to section and colour. Of other matter there is President Herrington's address, delivered on the opening of the meeting, the reports of the secretary and the treasurer, a tabular statement of varieties submitted for certificates, and the text of a paper dealing with Chrysanthemum diseases, read by Professor Stone of Andover. A detailed list of the prizes awarded at the show is given, and the present leading officials are: President, A. Herrington; Vice-President, Elmer D. Smith; Treasurer, John N. May; Secretary, Fred. H. Lemon. This year the show was held in Boston, Mass., and it is to be hoped that by the introduction of new blood the society may, by considering the interest, not only of trade members, but also of the amateur element, of which there has hitherto been too little, grow and prosper and do a good work in the future, as it seems to give every promise of doing.

"Vegetables and their Cultivation."—After a careful perusal of this new publication, we have no other words than praise for the excellence of its contents. The author has dealt fully with the laying out of a vegetable garden, cropping, general management, pests and diseases, soils and manures, friends of the gardener, and, on the whole, is justly entitled to claim for

* "Vegetables and their Cultivation." By T. W. Sanders, F.L.S. (W. H. and L. Collingridge, 148 and 149, Aldersgate Street, E.C. Price 5s. net, by post 5s. 6d.).

his work "the most up-to-date and comprehensive on vegetables and their cultivation yet issued." Under the heading of "Soils" a long chapter is devoted to the consideration of the great variety of soils that are to be found in this country. Eighteen pages are devoted to manures, and under this heading invaluable advice is given. The art of cropping a vegetable garden is not forgotten, and in the pages that deal with this matter much useful information is disseminated. In the chapter devoted to "Miscellaneous Items" planting, watering, mulching, longevity of seeds, seedlings, thinning out, seed saving—this dealing briefly with each popular vegetable in alphabetical order—"bolting" of crops, tools, &c., preparing vegetables for exhibition, &c.; there is much good practical advice to those who wish to cultivate vegetables successfully. The consideration of "Pests and Diseases" takes up some fifty pages, and no pains have been spared to make this of service to the reader. Under the heading of "Crops: Their Pests and Diseases," the name of each vegetable is given in detail, as well as the pest or disease to which they are subject to attack. Diseases are similarly dealt with, and their effects illustrated by drawings and photographs. Popular vegetables are treated in a most interesting as well as in a practical manner. The botanical name of each is first given, this is followed by synonyms, foreign names, natural order, native habitat, duration, history, uses, and culture. In the case of the more important vegetables fuller particulars are given. For the guidance of the inexperienced cultivator twenty-two pages are devoted to a "select list of vegetables," the selections first having been submitted to several experts. For this reason they may be regarded as trustworthy. Not the least important feature of the new book is a series of tables showing when to sow or plant, when crops are ready for use, and the time they take to reach maturity, &c. This tabular arrangement of work to be carried out embraces all vegetables, so that the grower may see at a glance just the information he requires. "Some Garden Friends" is quite a novel idea, and the interesting way they are dealt with in the chapter allocated to them is commendable. In the last thirty pages is given a brief summary of a year's work in the garden. The volume is profusely illustrated, and there are five coloured plates of insect pests. For the student and the practical gardener there is little doubt this new book of Mr. Sanders' will be regarded as a standard work.

NURSERY GARDENS.

CHRYSANTHEMUMS AT FRAMFIELD, SUSSEX.

NO trade grower of the Chrysanthemum can claim to have done more for the flower than Mr. Norman Davis of Framfield, near Uckfield, Sussex. Not only has Mr. Davis distributed many of the best English-raised varieties now in commerce, but he has also raised many very fine seedlings. Several sports, too, from well-known varieties have emanated from this source, and not a season passes but that something interesting comes from Framfield. The new Japanese variety, Mrs. Charles Davis, is a lovely flower of a rich orange-yellow colour, and is a cross between J. R. Upton and Duchess of Sutherland. In many respects it is similar to the last named, and the blooms are strikingly effective. Another of Mr. Davis's seedlings is Marshal Oyama, a large, full Japanese flower of good substance, and with long, strap-like petals. The colour is bright chestnut on a golden-buff ground, and golden-yellow reverse. Of good quality also is the new Framfield seedling Algernon Davis. This is a massive bloom, with petals of medium width that twist and curl prettily, the colour rich bronze, shaded chestnut. Japanese novelties raised by Mr. Charles Penford, as usual, are a goodly set, and these Mr. Davis is to distribute in early spring. The present series promises to well maintain that high distinction. Leigh Park Rival is an orange-yellow, shaded

bronze, having very long petals, and this variety has been certificated this season. Miss Mona Davis is another variety that has received similar honours. This is a lovely creamy white flower, with broad, drooping florets, and from a second crown bud selection should be welcome for the November shows. Another flower that has been much admired is Lady Curzon. It is a bloom of good quality, not so large as some perhaps, but quite large enough all the same. The colour is a rich canary yellow, faintly tinted chestnut. A fine crimson Japanese of large size is George Hutchinson. The florets open flat, and finally droop, making a useful exhibition flower. Duchess of Bedford is another exhibition bloom something in the way of the well-known Mrs. C. Beckett, but the petals are rather longer. This new sort may be regarded as a good white. A very large incurved Japanese is Miss Fitzwygram, which is suitable for the back rows of a show board, the colour golden-yellow. Mont Blanc might well be regarded as an incurved, as the late flowers show this character. The colour is ivory-white. Of the more popular up-to-date Japanese sorts Mr. Davis has a very fine selection. Striking examples are such sorts as Mrs. C. Beckett, Beauty of Leigh, Henry II., Valerie Greenham, Mrs. J. Hadaway, Mrs. J. Dunn, Maud du Cros, yellow Mme. Nagelmackers, J. H. Silsbury, Mlle. Albertine Bertrand, and The Pearl. An immense flower with long, spreading florets is Mrs. Guy Paget. The flowers are flushed with pink, changing to ivory-white as they develop. When propagated early, second crown buds should be retained; a later striking, first crown buds. The blooms of Mary West are large and massive, and their colour yellow, shaded reddish bronze, makes them attractive.

M. E. Calvat's introductions of the present season are much better than they have been for some years past. Several in the present set seem likely to occupy prominent positions in succeeding seasons. The more conspicuous sorts are Roi d'Italie, a canary yellow flower, with a deeper reverse, making a capital Japanese bloom. Mme. B. Oberthur is another fine sort, pure white. Chrysanthemiste Montigny is good here, and has been shown well in two or three instances this season. It is an incurved Japanese bloom, colour pale straw yellow, slightly flushed red. Mlle. Anna Debono is another pure white Japanese, and Princess Mafalda is also pure white, with an attractive tinge of green in the centre of the bloom. Maurice Rivoire, deep red, with golden reverse, and Préfet Boucourt, creamy white, delicately flushed rosy salmon, are both worthy of notice and distinctly good. Established favourites are well grown here, and in large numbers.

New incurved varieties have given quite a fillip to this type of the flower this season. The novelties of the present year are devoid of coarseness, yet they are large and of beautiful globular build. Mr. Davis has cultivated them well, and among the most striking examples we are pleased to mention Amber Beauty. This is a Framfield seedling and is a splendid incurved of true type, without the least trace of Japanese character about it; colour, clear shade of orange amber. Other good incurved sorts are Buttercup, a large flower of good form, rich buttercup yellow; Mrs. J. P. Bryce, pure white; Margaret Brown, purple-lilac, with silvery reverse, fairly large size, and of good form; Hilda George, a large bloom of good form and of a silvery mauve colour. The two last named were raised by Mr. W. Seward, both being certificated this season.

Other new incurved sorts worthy of notice are: Mark Tonrle, rosy amaranth, and Triomphe de Monthron, a handsome flower, inside of florets rosy crimson, with light buff reverse. Considerable attention is given to the culture of so-called decorative Chrysanthemums, Mr. Davis persistently testing exhibition and other sorts with the object of ascertaining if any are really suitable for growing for market and for cut flowers. He has often found that a variety, rather undersized for exhibition, will develop plants carrying a quantity of dainty flowers for decoration. Of the early-flowering and semi-early flowering varieties—that Mr. Davis prefers to describe as "Hardy Garden" Chrysanthemums—there is quite a representative collection.

To the older varieties is added a plethora of dainty novelties. These newer sorts embrace a very fine lot of Japanese flowers, the plants, in many instances, being of branching and robust growth. Specially good new sorts are the following: Champ d'Or, yellow; Etoile d'Or, brilliant yellow; Howard H. Crane, chestnut, golden reverse; James Bateman, a Framfield seedling, white, heavily shaded pink; Jason, pale yellow; Fleure Rouge, reddish salmon; Etoile Blanche, starry white flowers; Enchantress, bronze, shaded salmon; Acajou, reddish mahogany; Glacier, pure white; Nina Blick, bright reddish bronze; Kitty, pink; Pride of Hayes, soft rose; Rosie, terra-cotta; Rubis, bright purple-amaranth; Madge Blick, rich amaranth; Mlle. Lucie Daveau, purest white; Mrs. W. Hubert, salmon-rose; and Pride of Keston, deep rose, silvery reverse. The glass houses at Framfield are numerous. The big house covers just half an acre, and measures 325 feet by 62 feet. We know of no other glass house to equal this for Chrysanthemum displays. It has a double span, and in the spring is filled with early vegetables, Peas, &c. These crops are generally followed with Tomatoes. In August last it was planted with some 10,000 Chrysanthemums, representing all the types, except the earliest, which, of course, are grown outdoors. The beds of singles—both large and small-flowered sorts—Pompons, Anemone-Pompons, and all the big Japanese varieties, made a remarkable display. They were all grown in bush form, and many were the surprises as to the possibilities of using the large-flowered sorts for decorative purposes when freely grown.

SOCIETIES.

NATIONAL ROSE SOCIETY.

REPORT OF THE COMMITTEE FOR 1904.

THE report which the committee have now the pleasure of presenting must, in their opinion, be regarded as the most favourable that has yet been placed before the members, for there is not a single branch of the work undertaken by the society which does not show during the past year a distinct advance.

The Metropolitan exhibition, which again took place, by the kind permission of the Benchers, in the Temple Gardens, was one of the largest, and certainly the most varied and interesting, the society has yet held, while the average quality of the exhibits was at the same time exceptionally good. In fact, considered as a whole, it may justly claim to have been the finest Rose show ever held in any part of the world. The weather previous to the exhibition was, throughout a great part of the country, very favourable, while the fixture, July 6, proved singularly well-timed, bearing in mind that during June and the early part of July the season was a somewhat backward one. The arrangements connected with the show were, on the whole, very satisfactory. This was in a great measure due to the experienced staff of the Royal Horticultural Society having been again so generously placed at the disposal of the committee on the show day by the president and council of that society.

In order to maintain the general interest in this, the leading Rose show of the year, several new features are annually introduced. These appear to have been much appreciated, especially by the visitors, who were more numerous than at either of the two previous exhibitions held by the society in the Temple Gardens.

Although a provincial show was not held this year in the north of England, no break was allowed to take place in the long series of interesting competitions for the society's two Jubilee challenge trophies, which were, with the consent of the committee, competed for instead at the Bath Rose Show on July 14. It had often been proposed that the committee should hold an exhibition in September, in order to bring before the public the large number of Roses now in cultivation which bloom freely in the autumn, but not until the present year has this been found practicable. For a first venture the autumn Rose show held by the society, in conjunction with the Royal Horticultural Society in their new hall in Vincent Square, in September last has been generally considered a great success. The committee are encouraged to think that, when better known, this very interesting and instructive exhibition will fully justify the new departure in the way of Rose shows that has now been made. It may here be mentioned, as showing the friendly feeling existing between the two societies, that on the occasion of the opening in July last of the magnificent hall, where the autumn Rose show was afterwards held, a congratulatory address was presented from the National Rose Society to His Majesty the King as patron of the Royal Horticultural Society, in reply to which address an equally cordial message has since been received, signed by the president, treasurer, and secretary of the Royal Horticultural Society.

It is with the deepest sorrow that the committee have to record the sad loss the society has sustained in the death of their president, the late Dean of Rochester, which took place on August 27 last. It may not be generally known that Dean Hole presided at that memorable meeting of rosarians in 1876 when the National Rose Society was founded. He was

at once elected president, a position he occupied with great benefit to the society for twenty-seven years. The loss of Dean Hole to the society is in many ways an irreparable one, for he occupied an altogether unique position in the Rose world, as being the great apostle of Rose culture, so that wherever Roses are mentioned the name of Dean Hole must long remain inseparably connected with them. It is proposed early next year to set on foot a fund in order to establish a suitable memorial to the society's late president, to which fund many of the members will no doubt be glad to contribute.

The committee also announce with much regret the recent death of the Rev. A. Foster-Melliar, one of the society's most valued vice-presidents. He had just completed the revision of a new edition of his "Book of the Rose," one of the most complete and practical works on Rose culture, particularly from an exhibitor's point of view, that has yet been written. He was himself a keen exhibitor, and in 1893 won the society's Tea and Noisette challenge trophy. His kindly presence will be much missed, both at the annual meetings and at the exhibitions.

The bye-laws and regulations of the society have year by year received various additions and amendments, but the committee feel that the time has now come when those additions and amendments should be brought into line, and the whole series overhauled. The constitution, rules, bye-laws, and regulations have been drawn up with much thought and care by Mr. C. E. Shea, assisted by a small committee of experts in such matters.

Another sub-committee, which has also been doing good work during the past year, has been that appointed to prepare the society's new work on pruning Roses, which is designed to meet a want long felt by rosarians generally. In referring to that sub-committee special mention must be made of the great assistance it has received in its somewhat difficult task from the excellent reports sent in by one of its members—Mr. G. L. Paul.

FINANCE.

The receipts in gate money at the Temple Rose show exceeded those at the previous exhibition by nearly £100. This advance, together with the large amount received in subscriptions from new members, has placed the finances of the society in a most encouraging position. The receipts from all sources, including a balance from the previous year of £53 7s., amounted to £1,353 19s. 3d., and the expenditure to £1,064 19s. 4d., leaving a balance in the treasurer's hands of £289 19s. 11d. Of that amount it is proposed to set apart £100 for the new reserve fund, and to contribute £25 to the new Horticultural Hall Fund of the Royal Horticultural Society. The advance in membership is most gratifying as showing the increased interest now taken in the work of the society in fostering, by its exhibitions and publications, the cultivation of the Rose in all parts of the United Kingdom. During the past year 379 new members have joined the society, or a greater number than in any previous year. In fact, the number of members is at the present time more than double what it was only four years ago, the totals being 584 in 1900, and 1,805 in 1904.

ARRANGEMENTS FOR 1905.

As the Benchers object to the metropolitan show of the society being held any longer in the Inner Temple Gardens, the committee have entered into arrangements with the Royal Botanic Society of London to hold that exhibition in their gardens in Regent's Park on Thursday, July 6. The Royal Botanic Gardens may not be quite as centrally situated as the Temple Gardens, but in all other respects they are much better adapted for a Rose show. In fact, they may be regarded as forming an ideal spot in which to hold such an exhibition. Added to this, for the first time in the society's existence, the committee will have an entirely free hand in all the arrangements connected with their metropolitan show, which cannot but prove a great advantage to both exhibitors and visitors. The provincial exhibition will be held on July 13 at Gloucester, in conjunction with the Gloucester Rose Society.

The autumn Rose show will again be held in the Royal Horticultural Hall in Vincent Square, in conjunction with the Royal Horticultural Society, and next year at a rather later date, viz., Tuesday and Wednesday, September 26 and 27. This exhibition will be rendered even more attractive than the last by the introduction of several new classes in order to illustrate still further the value of the Rose as an autumn flower.

To the donors of special prizes the committee tenders their best thanks, as these prizes not only add considerably to the interest of the society's exhibitions, but also allow of the money thus saved being spent on the improvement of other classes. The local secretaries have once more obtained for the society a good many new members. Among the most successful may be mentioned Mr. C. Barber, Mr. E. J. Holland, Mr. H. E. Molyneux, Rev. J. H. Pemberton, and Mr. E. R. Smith. To Miss Willmott, one of the society's vice-patronesses, the thanks of the committee are especially due, not only for the large number of members she has obtained, but also for the kind interest she has taken in the work of the society generally, and her earnest endeavours at all times to advance its interests.

READING GARDENERS' ASSOCIATION.

At the last meeting of the above society, which was largely attended, Mr. T. J. Powell, Park Place Gardens, Henley-on-Thames, gave one of his well-known practical demonstrations. Having already treated upon bouquet-making, sprays and buttonholes, and the decoration of vases with flowers, Mr. Powell, by request, gave an object-lesson in packing fruit for transit. In drawing the members' attention to the system he practised, he said that he should put before them the ways he had found were the best for his particular purpose, which perhaps, however, would not prove to be suitable for all present. Strawberries were first touched upon, and were followed by Red Currants, and, although so late in the year, a splendid lot of fruit of the latter, picked from trees in the open on the 3rd inst., had been brought by

Mr. F. Bright, Whiteknights. Grapes, the most popular of fruits for sending to friends, &c., were packed in baskets by themselves, and also with Melons and Peaches, Citrons and Apples being used to represent the latter. Peaches alone, Apples, Pears, and, in fact, all English fruits were dealt with. Particular attention was directed to the proper labelling of baskets, &c., and that care should be taken that everything was done to ensure the better handling of the packages by those who came between the sender and receiver. Needless to say very great interest was manifested in the demonstration, and many questions were asked during the evening. As before mentioned, Mr. Bright provided Red Currants, and Mr. W. Townsend two splendid bunches of Grapes. A hearty vote of thanks was accorded to Mr. Powell for his demonstration, on the proposition of Mr. C. Foster, supported by Messrs. Neve, Townsend, and Exler.

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.

The Bullace (M. M. W.).—The Bullace grows in the hedgerows in many parts of England, and the best way to raise a stock would be to sow half a bushel or so of its fruits in nursery lines. It is not uncommon in old orchards, but we suppose the Damson supplanted it in most places, just as the Apple and the Pear did the Service Tree. The Sloe is confined to Europe, but the Bullace extends to (or from) the Himalaya and North Africa. We should think the Mirabelle race or the Cherry Plums are cultivated descendants of the Bullace.

Rose cuttings after frost (E. M. JARVIS).—Many deaths occur among cuttings of Roses when planted in the borders in autumn, from the lifting power of the frost loosening the soil and letting the air in around the base when the wound is healing, and forming a callus preparatory to the emission of roots. This might be obviated by placing a mulch of old leaf-mould between the rows as soon as the cuttings are planted. When the mulch has been omitted, the soil should be made firm around the cuttings after a frost as soon as the surface gets dry enough to tread upon without sealing it up too much. The mulch can then be added and all will be safe.

Golden Irish Yew (WHITNEY).—There are two or three variegated forms of the Irish Yew, but one recently noted under the name of *fastigiata aurea* is certainly the best that we have seen. In this the variegation is not limited to a few shoots, as is the case with some kinds. It certainly forms a very bright and effective specimen, and is worthy of association with the golden forms of the common Yew. Another very distinct golden Yew is that known as *horizontalis elegantissima*, a very free-growing variety of the common Yew, and which forms a strong leading shoot, and pushes out the stout side branches in an almost horizontal manner.

Holly hedgerows (S. S. TYNDALL).—For hedgerows no other plant is scarcely so well adapted. It forms in course of time a fence as tall, as wide, and as dense as can well be wished for by the most exacting. But it is of slow growth in a young state; when it has been planted three or four years, if the requisite attention be given to it, the advance is more rapid. There are several instances of enormous Holly hedges about the country. That planted by Evelyn at Say's Court, prompted thereto, it is said, by the Czar Peter when learning shipbuilding at Deptford Dockyard, although he is credited by some with having destroyed it, has an historical reputation. Scotland is famous for its Holly hedges. There is one at Tynninghame, the Earl of Haddington's seat in Scotland, which is said to be 150 years old, and which is both broad and tall. There is a very large and broad hedge at Keele Hall, Staffordshire, and it affords a roosting-place in winter for hundreds of birds.

Raising conifers from seed (WALLIS J. WHITTON).—In raising the different hardy conifers from seed, the treatment given them will depend to a great extent upon the quantity of seed it is intended to sow, for where large quantities of plants are raised, the seed of many kinds is sown in the open ground, and generally a sheltered border is chosen for the purpose. But with small quantities of seeds, or in the case of choice or delicate kinds, by far the better way, and that usually followed, is to sow them in pans or boxes, which are protected by a frame during the earlier stages of the young plants. In the case of seeds that are to be sown in the open border, the general way is to prepare the soil for their reception by raking it to a fine and even surface. On this the seed is sown, gently patted down with the back of the spade, and then covered with some finely-sifted soil. The depth at which the seeds are covered will depend upon their size. For the smallest a quarter of an inch will be sufficient; while in the case of the large kinds an inch is not too much. The soil prepared for covering the seeds should be of an open, sandy nature, and it is an advantage if some charcoal dust is mixed with it, as this tends to prevent the young seedlings damping off. If there is none at hand wood ashes are a good substitute. The best time to sow seeds in the open ground is about April, as the soil will then have been nicely pulverised by the winter's

frost and just in condition for seed sowing. Besides this, there is all the growing season before the young plants, which pass through their most critical stage before the winter. When the seed is sown, a few Spruce branches laid over the bed will be of service to prevent too rapid an evaporation, and thereby assist the germination of the seeds.

Planting street trees (NORTHERNER).—It is a common practice in planting shade trees along the borders of streets to remove nearly all the tops by a single cut across the stem, converting the trees into blunt-headed poles, the object being to reduce the mass of leaves which the mutilated roots must support and to lessen the action of winds. The operation is usually successful, but it is a long time before such trees attain a handsome or symmetrical form. A much better way, after having secured a copious supply of roots by careful digging, is not to cut off any large limbs (unless to give the head a good form), but to thin out all thick, small branches and shoots, leaving only a few evenly distributed, and cutting partly back all that remain for reducing the amount of leaves. In this way we retain the form and size of the head to a greater or less degree, with little draft on the shortened roots, and little chance for the winds to affect the trees.

Culture of Epiphyllums (BERKS.).—*E. truncatum* can be had in flower at any time during the winter, provided the plants have had their growth well matured and they are put in heat long enough before they are required to be in bloom. In most cases about the end of January or the beginning of February will be early enough to have them in, as flowers are then scarcer than at other times. Where there is a sufficient stock it will be well to start them at three or four different times, allowing about three weeks to intervene between each set of plants being put into heat. A portion may now be started. A cool stove temperature will be best. The flowers of Epiphyllums generally, including the *truncatum* varieties, are naturally short lived, and when the plants are kept very warm whilst being brought into bloom, it makes them so soft in texture that they do not keep fresh long in a cut state. To correct as far as possible the fugacious nature of the flowers and to make them stand well in water, the plants should be stood well up to the light whilst the bloom is coming on. No more atmospheric moisture than necessary to keep the air in a genial condition should be used. Be careful not to make the soil too wet, especially before the roots have had time to move. Whether on their own roots or grafted on the *Pereskia*, Epiphyllums dislike the soil being too wet.

PUBLICATIONS RECEIVED.

Rotting of Potatoes During Storage, published by the University of Leeds; The Protection of Native Plants, by Robert Tracy Jackson, Cambridge, Mass.; Catalogue of Books on Gardening in Cardiff Public Libraries; Journal of the Board of Agriculture; Kew Bulletin of Miscellaneous Information, containing the list of seeds of hardy herbaceous plants and of trees and shrubs; Boletim da Real Sociedade Nacional de Horticulura de Portugal.

CATALOGUES RECEIVED.

Gladioli.—Messrs. Kelway and Son, Langport, Somerset. *New Carnations and Chrysanthemums.*—Messrs. James Veitch and Sons, Limited, Chelsea. *Seeds.*—Messrs. Sutton and Sons, Reading; James Carter and Co., High Holborn, W.C.; Frederick Roemer, Quedlinburg, Germany. *Chrysanthemums.*—Mr. Frank Lilley, Guernsey. *Spring Seed Guide.*—William Fell and Co., Limited, Hexham.

TRADE NOTES.

GARDENING CATALOGUES.

THE Amateur Guide in Horticulture for 1905, published by Messrs. Sutton and Sons, Reading, contains a mass of information that will well repay reading and digesting by all interested in gardening. The flower lover, the fruit and vegetable grower, will find descriptions and illustrations of the best things to grow, as well as notes upon their culture. This annual publication is as beautiful as it is useful. The illustrations are finely reproduced, the soft half tones of leaves and flowers being faithfully shown.

The chief features of the Practical Gardening Annual issued by Messrs. Carter and Co., High Holborn, are the beautiful coloured plates of flowers. These are reproductions of coloured photographs, and are extremely good; the colours are not exaggerated, and the dwarf Peas and Primulas are, we think, particularly good. This publication has an appendix containing monthly operations for all departments of the garden. Readers will there find many valuable hints about the culture of flowers and vegetables.

MESSRS. PEED AND SON'S NEW NURSERIES.

MESSRS. JOHN PEED AND SON write: "We beg to inform you that we have taken new nursery ground at Morden, Surrey, where we shall grow our fruit trees, Roses, and shrubs. Our addresses are now, therefore: Roupell Park Nurseries, West Norwood, S.E.; Streatham Park Nurseries, Streatham, S.W.; and Morden Park Nurseries, Morden, Surrey."

GARDENING APPOINTMENT.

MR. H. HOWELL, late head gardener at Binfield Manor, Bracknell, for eighteen years, has been appointed gardener and estate manager to C. Kaufman, Esq., The Wilderness, Earley, Reading.

* * The Yearly Subscription to THE GARDEN is: *Inland*, 25s.; *Foreign*, 17s. 6d.



THE GARDEN

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HORTICULTURE IN 1904.

WITH the present number of THE GARDEN another year draws to a close, and a year, it may be said, full of incident in the world of horticulture. The most memorable celebration was the hundredth anniversary of the formation of the Royal Horticultural Society, which was fortunate in marking so auspicious an epoch by the opening of a new hall in Vincent Square by his Majesty the King. With this central meeting place for trade and amateur growers, and the new garden at Wisley, the society is enabled to increase its work for horticulture in this country, and a work, let it not be forgotten, entirely without State support. The council wish it to be remembered that a large debt still exists. During the year many beautiful and interesting exhibitions have been held in this hall, and the most important were the displays of fruit, Colonial produce, and autumn Roses, in conjunction with the National Rose Society.

This vigorous society is fortunate in possessing a president who is devoted to its interests, an untiring secretary in Mr. Wilks, and a strong council. Without this combination the extraordinary development of recent years could not have taken place, and the increasing roll of fellowship is the result of giving plenty for the money, in the shape of fortnightly meetings, exhibitions in the Temple Gardens and at Holland Park, and a journal which has taken its place among the most prized of horticultural and scientific productions. It contains the usual proceedings of the society, and a full report of the invaluable lectures delivered during the year at the fortnightly meetings.

The National Rose Society has a happy record for the year, and this was mentioned so recently that further reference to it is unnecessary. Next year the great summer metropolitan show will take place in the gardens of the Royal Botanic Society at Regent's Park, and the experiment will be watched with interest and not without some anxiety. But the authorities have met the Rose Society in so generous a spirit that serious failure, given the blessing of a fine day, is almost impossible.

The Royal Botanic Society is making a determined effort to bring back its former influence and glory. Its botanical work should ensure the sympathy of scientists, and we wish it well in the future.

It is pleasant to record, although we are not in entire agreement with the multiplication of special societies, that there is vigorous life in those devoted to the Chrysanthemum, Potato, Sweet Pea, and Daffodil. The interesting discussion that has taken place of late in our pages relating to the poor quality of many varieties of Potato will be, we hope, fruitful in good results. Exhibitions should be conducted on a broad basis. Quality is as precious as quantity, and size and crop are not the only virtues that a vegetable should possess.

The Horticultural Exhibition at St. Louis, and the Old English Garden designed by Mr. Goldring and carried out with much skill by Mr. T. W. Brown, brought credit to the British horticulturists who showed there. The Dusseldorf Exhibition was also of much interest.

It is gratifying to notice the foundation of many new gardening improvement societies for young gardeners, and the older branches have greatly increased their membership. This is satisfactory. It shows that horticultural practice is spreading, and that there is a desire for knowledge on the part of those engaged in the work. This reminds us of Mr. Watson's earnest endeavours to place the British Gardeners' Association on a sure foundation, and we hope his efforts will be crowned with success.

The past year will be remembered for a beautiful summer and a golden autumn. A fine fruit crop after a brilliant promise, which was unfulfilled partly through a plague of insect pests, the glorious colouring in wood and garden in October, and a rainy and foggy December are the chief garden features of 1904. The year is remarkable for the excellence of the vegetable crops.

Our gardening charities, in spite of slackness in trade, have substantially increased their revenues, and this is especially true of the Gardeners' Royal Benevolent Institution, a record subscription having been made through the effort of the chairman, Mr. H. J. Veitch, and a munificent donation of £500 from Mr. N. N. Sherwood, who also contributed the same sum to the Gardeners' Orphan Fund.

The proceedings of the Horticultural Club have been marked by two papers of exceptional interest, one by Sir John Llewelyn, Bart., on "Himalayan Rhododendrons," and the other by Sir George Watt on "Indian Primulas." Both of these will be published in pamphlet form by the committee of the club and in the Royal Horticultural Society's Journal.

The retirement of Professor Henslow from the honorary secretaryship of the Scientific Committee of the Royal Horticultural Society after twenty-five years service should not be passed by unnoticed.

A brief record of the principal events of the year brings the sad duty of naming the men who have passed into silence. Horticulture has lost many devoted servants during the past year, some that had long passed the allotted span of life, and others removed in the full enjoyment of their life's work. We think of the stately figure of a noble churchman and gardener in the Dean of Rochester, of the Rev. Wolley-Dod, of the cheery presence of the Rev. Foster-Melliard, of Mr. F. G. Lloyd, a member of the Council of the Royal Horticultural Society; of that ardent Auricula grower, Mr. Richard Gorton; and among nurserymen of Mr. Herbst; Mr. Hugh Fraser, of Leith; Mr. John Jefferies, Cirencester; Mr. Hugh Dickson, Belfast; Mr. Thomas Smith, senr., Stranraer; Mr. David Drummond, Dublin; and Mr. William Cole, Feltham. Gardeners mourn the loss of Mr. G. T. Miles, gardener and agent to the Earl of Carrington, at High Wycombe, and Mr. Edwin Hill, gardener to Lord Rothschild, Tring Park. These are only a few of the leading figures in the horticultural world that have ceased their earthly toil, and their good work for gardening should be an example to a younger generation.

May the year that is dawning bring health, happiness, and prosperity to all our readers. It is to their practical help we look in the future, and we are happy in the belief that it will not be denied.

THE CHILD'S GARDEN.

CHILDREN can be taught to garden at a very early age. I hardly remember when I began, but I know that greatly to my delight I was constantly taken away from my lessons by my mother to help her in her lovely garden, for she discovered that out of three sisters I was the one who showed the most aptitude for that entralling occupation. We had all little gardens, but mine was always "a-growing and a-blowing," while the other two were neglected wildernesses of weeds, so much so that the master confiscated them until the promises of amendment were carried out. How well I remember my dear little plot edged round with bits of Derby spar, and centred by a Geant de Bataille Rose, the joy and pride of my young heart, and backed by a hedge of old-fashioned Sweet Peas. It was bright with annuals, bought by pennies hardly earned by picking

up Acorns for the deer, and when the season came for bedding out there was the timid begging from the somewhat obdurate Lancashire gardener of a few surplus Geraniums, Heliotropes, and Calceolarias. Oh! the joy of wheeling those treasures off in the little green wheelbarrow and planting them. Then later came the first nosegay for mother, arranged with more generosity than taste, and placed on her dressing table as a surprise. I am sure the love of gardening is inborn, and I do not believe it can be instilled, but circumstances will develop it if it be there. There is a mysterious sympathy between the born gardener and his flowers—he knows what they want by instinct, or if he is not quite sure he finds out—he treats them, in fact, as a mother does her children. The boy is the father of the gardener, and it is most interesting to train and help the gardening faculty to develop. Children should always have a corner, an outdoor nursery as well as an indoor. Never mind if your gardener grumbles, and complains that they tread mud into his paths, and worry his life out for pots and soil and seeds, be quite firm about it and insist on the children's garden.

I remember a little girl of six years old whose father was the owner of a beautiful garden of world-wide repute—a garden faultily faultless, icily regular, splendidly null—saying to me, pathetically, "I do so want a little garden of mine own with real flowers like what you have." The prim flower-beds, the trim borders, the acres of glass houses, meant nothing to her. Her little true soul was yearning for a patch of garden where she could dig and rake and sow seeds. She wanted a green wheelbarrow and a red watering can, and, above all, real flowers that she could touch with her little hands unchided. She got all these delightful things ultimately, and her father's gold having melted in some adverse blast of fortune's furnace, she is now earning more than a modest competence from her flowers, and, better still, doing good work in her generation. The tiny sower of Mustard and Cress may become a great light in the horticultural world, and the child's garden may grow into a paradise of cultured beauty. Therefore give your children gardens when they ask you, and await results.

The children's garden is too often relegated to a bit of waste land in some unneeded portion of their parents' property, on the plea that anything is good enough. This is wrong; for good beginnings make good endings. It should be, no doubt, placed where its position should be tenable, for the little workers certainly do not always maintain their property in the immaculate state of tidiness desirable in the eyes of the high-class gardener. Some pleasant spot in the kitchen garden should be selected, sheltered, but airy, with a modicum of shade; and each child should have its plot—quite a small one—and a little well-made gravel path should run round each section, which should also be edged with stones or tiles. Bricks make a good edging, and prevent the soil from falling out. Before the child is given plants it should be allowed to expend some of its energies in digging, and should be given a good set of tools, not the rubbish that generally passes as a set of child's gardening tools, which are a source of danger and disappointment, but a strong, well made small iron spade, a shallow rake and a hoe, a trowel, and a truck basket, all marked with the child's initials to avoid dispute. A small iron wheelbarrow is most serviceable, and a gallon watering can. If possible a barrel for water should be near the allotment, with an easy tap, and a tub beneath it to catch the water against very

probable accidents—such as leaving the tap running. The children should have, if possible, a little shed of their own to keep things in, so as to avoid running foul of the gardener, for "they bothering children" are very often terribly in the way. It is very wise to start a child at once in the right road, so first teach him to hold a spade properly, then to trench a little, and rake and hoe; to rake is, after all, the most difficult art. After a lesson or two the child will be able to sow seeds quite nicely, patting down the soil and smoothing it with his small hands. He must also be taught to mark the alleys neatly with name of the flower, and to watch for the appearance of the little plants. It is best, before the child can discriminate the difference between these and weeds, to sow the seeds in chequers or lines, or make them put twigs outside a circle marked out with a flower-pot. Teach them to be economical with their penny packets, sowing thinly, for wasteful sowing is a common fault with their elders. AUGUSTA DE LACY LACY.
(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, 3, Southampton Street, Strand, London.

CLIANTHUS PUNICEUS OUT OF DOORS AT CHRISTMAS.

From Kingswear, South Devon, Mr. S. W. Fitzherbert sends for the third year in succession the curious bright red flowers of *Clianthus puniceus* (the Glory Pea), gathered at Christmas from an open, unprotected wall.

A FREAK IN GRAPES.

Mr. E. R. Whitwell sends a monster Grape that is very unusual and interesting. We have never seen one like it before, but Dr. Masters, our great authority on these freaks of Nature, in his well-known work "Vegetable Teratology," says: "In the Barbarossa Grape I have frequently seen a fusion of two, three, four, or more berries quite at the end of the bunch, so that the clusters were terminated by a compound Grape." Mr. Saunders writes: "I have not been able to make out to my satisfaction how many Grapes have united together to form your monster, but I believe seven have. I cut the fruit through horizontally, but could not find any septa or divisions in it; there were only four pips. A malformation of a somewhat similar character may often be seen in the terminal blossoms of the common Foxglove, in which case several flowers have united to form one large campanulate flower."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 2, 1905.—Meeting of the Mansfield Horticultural Society

January 3.—Royal Horticultural Society's meeting; meetings of the Redhill, Reigate and District, and the Sevenoaks Gardening Societies.

January 11.—Sheffield Chrysanthemum Society's meeting.

January 17.—Meetings of Reigate and Sevenoaks Gardening Societies.

Horticultural Society of Africa.

A large, representative, and influential meeting of gentlemen from the principal centres of the Transvaal interested in horticulture assembled at the Grand National Hotel in September. The object was to form a horticultural society for the Transvaal, which should be part of the larger society embracing the whole of Africa. Already the movement has been initiated, with every prospect of success, in the Cape Colony and Natal. It is proposed that each colony should have a separate organisation, with its own president, secretary, and council. The whole movement, so important in its future developments and possibilities, has been originated by Mr. Alfred Chandler, F.R.H.S. Eog., F.R. Met. Soc. He has written several letters to the local Press on the subject, with the result of inspiring horticulturists of all classes with enthusiasm for the project. The chairman moved that a society should be formed under the name of the Horticultural Society of Africa (Transvaal, Orange River Colony, and Rhodesia section), with the addition of the prefix Royal when a Charter had been obtained.



BLUSH MALMAISON CARNATION.

Mr. Sturm suggested the insertion of the word British in the designation of the society. The chairman, however, pointed out that it would be beneficial and desirable to have members and subscribers from citizens of other countries, and thought that the membership of the society should not be confined to those of British nationality. This view was supported by Messrs. Barrel and Menzel. Mr. Sturm then withdrew his suggestion.

Carnation Blush Malmaison.—Although of late years there have been several new varieties of Malmaison Carnations introduced, many growers still cling to the old ones. Among these the bluish Souvenir de la Malmaison is one of the best. It is the parent of several sports, the best of them being The Pink and the Princess of Wales. There is also a crimson variety.—T.

Roses in India.—There can be no question that Roses of all kinds thrive and bloom to perfection in India. In Upper India and in our hill-stations, whether Himalayan or the other ranges, Roses find a congenial home, and bloom to perfection. Even in Lower Bengal these lovely flowers can be brought to produce very fine blooms, but they require more care and attention and more cultivation. We demonstrated in

January, 1900, at our Rose show, what could be done, so that no one—even in smoky and foggy Calcutta—need despair of growing Roses successfully. Nearly every family of the Rose can be grown to perfection in upper India, except perhaps the Moss Rose, and this has been successfully cultivated on the Himalayas. The Ayrshire and Boursalt groups are perhaps the most difficult to bloom, but they are not of such beauty or attraction as to render their absence from the Indian garden a matter of regret. Every Hybrid Perpetual, Tea and Hybrid Tea Rose can be made to grow and bloom perfectly, and with our choice Noisettes and Bourbons, added to some of the well-known Provence and China varieties, we have a wide range to select from. The hybridist goes on adding to the number of varieties every year, and it is a question with rosarians all over the world whether the great number of new Roses put on the market every year is commensurate with their merits. A large number of old favourites compare favourably with the new comers, and we are not sure whether a large proportion of the latter are really worth adding to our existing collections. —*Indian Planting and Gardening.*

Chrysanthemum names.—Your correspondent "A Hemsley" does well on page 407 to protest against the renaming of Carnations received from America, as this leads to no end of trouble as well as, in some cases at least, to pecuniary loss. Just the same confusion cropped up when the Japanese section of Chrysanthemums was beginning its present era of popularity, for a set of new varieties sent out by that noted raiser M. Simon Delaux in the spring of 1882 were by some cultivators treated in this way on reaching our shores, and as they were by others grown under their correct names a deal of confusion arose. Among them were the following, which, with their synonyms, are taken from the centenary edition of the National Chrysanthemum Society's catalogue: La Bienvenue syn. J. Hillier, Source Japonaise syn. R. Ballantine, Tricolor syn. Mr. J. Starling, and Jeanne Delaux syns. F. A. Davis, J. Delaux, Japon Fleurie. This last (Jeanne Delaux), though now almost if not quite discarded, was, to my mind at least, the most beautiful rich crimson-flowered Chrysanthemum that has ever been exhibited, possessing a grace and elegance that we do not find in the huge blossoms of to-day.—T.

Chrysanthemum Market Gold.—Among a large number of decorative varieties grown here for midwinter there is certainly none more beautiful than this new variety, and it stands out conspicuously. We have a good many plants of this just coming into perfection. It is a rich golden yellow, the flowers stand erect, are freely produced, the habit of the plant is all one could wish for, and the foliage is good. The National Chrysanthemum Society did well in giving this an award of merit at its late show. Either for market use or home supplies this will, I feel certain, prove to be one of the most valuable additions to this useful class during recent years. It is being sent out by Mr. H. J. Jones of Lewisham, and all who cultivate late-flowering Chrysanthemums should not fail to add this to their collection.—E. BECKETT, *Elstree.*

The Garden City Movement.—Last week Mr. G. M. Brown, M.P., gave a lecture on the Garden City Movement in Edinburgh. The lecture, which was illustrated by limelight views, was an excellent one, and was listened to with close attention by a good audience. Mr. Brown referred, among other phases of the movement, to what was proposed to be done at Hitchin by the Garden City Association, and spoke in eulogistic terms of such places as Bournville, Port Sunlight, and others where the provision of gardens to all dwellings had been secured. He also referred to the efforts being made to secure that similar provision should be made at the proposed naval base at Rosyth. Mr. Brown was warmly thanked for his interesting lecture.

Union of Dunfermline Horticultural Societies.—As was reported in THE GARDEN at the time, a meeting of the Dunfermline and East of Fife Horticultural Society and the Dunfermline Chrysanthemum Society was held

recently to endeavour to arrange a union between the two, and a committee was appointed to further the matter. An adjourned meeting was held in the Lecture Hall, Dunfermline, on the 17th inst., presided over by Mr. James Meldrum. On the proposal of Mr. T. Harrower, seconded by Mr. D. Murray, it was resolved that the old societies be dissolved, and a new one formed under the title of "The Dunfermline Horticultural Society." The other necessary steps in connexion with the union were taken, and the following office-bearers appointed: Hon. president, the Earl of Elgin, K.G.; president, Mr. James Dunegan, Pittencreeff; vice-president, Mr. James E. McKillop; treasurer, Mr. Thomas Kilgour, Thistle Street; secretary, Mr. John Hynd, Mid Beveridgewell; auditors, Mr. Samuel Bigham and Mr. John Burt. A committee of thirty-six members was also appointed. There is every prospect of a successful career before this society, supported, as it is, largely by the Carnegie Dunfermline Trust, who give grants for the promotion of horticulture.

Dunfermline Horticultural Association. The members of this association will hold their annual social meeting on January 20 instead of on January 13, as originally announced in the syllabus. These social events have hitherto been very successful, and it is expected that this will be no exception.

Lecture on Mosses.—On the evening of the 20th inst. a lecture on Mosses was delivered to the members of the Dunfermline Working Men's Field Club by the president, Mr. James Fulton. For some time Mr. Fulton has been cultivating and studying the Mosses, and the lecture was largely a summary of his experiments in their cultivation and propagation. Mr. Fulton also spoke of the conflicting views held regarding several questions arising in the life history and cultivation of these plants, and stated that he hoped shortly to be in a position to state more definitely some conclusions he had formed. He was heartily thanked for his lecture, which it is hoped may interest others in the district.

Broughty Ferry Horticultural Association.—The annual general meeting of the Broughty Ferry Horticultural Association was held on the evening of the 20th inst. There was a good attendance, presided over by Mr. James Slater. The annual reports of the secretary and treasurer were very satisfactory, both showing favourable results of the year's work. The treasurer's accounts showed a balance to the credit of the association, while that of the secretary recorded an increase of membership, and a larger attendance at the ordinary meetings. The prospects of this association are very promising for the new session.

Removing large trees at Hopetoun House.—In the course of some improvements at present being carried out in the policies at Hopetoun House, the seat of the Marquis of Linlithgow, it was found necessary to remove about twenty large trees from a wood two miles distant to a new position near the house. The trees were all of large size and of considerable age, but they have been successfully removed by Mr. Hay, Lord Linlithgow's gardener, and there is little doubt that they will thrive from the care with which the operation was conducted. The machine employed was that from Messrs. W. Barron and Sons, Borrowash, Derbyshire.

A winter-flowering shrub (Hamamelis mollis).—The Hamamelis or Witch Hazels are among the most beautiful of shrubs or trees that flower before the foliage appears, and as the curiously shaped blossoms expand in midwinter their value is much enhanced, the number of shrubs flowering at this season being very few. *H. mollis*, which was introduced from Japan a few years ago, is the best of the family, and has, fortunately, proved hardy with us in a very exposed position, and a specimen about 4 feet in height promises to bloom well during the early part of January. The individual flowers are composed of narrow, wavy petals nearly 1 inch in length, and the colour is a bright yellow, much deeper, in fact, than any of the other Witch Hazels, and last a long time in perfection, not

being injured by frost or excessive wet. The leaves are very ornamental and distinct from all other members of the family, being much larger, of different form, and the underside is covered with a dense mass of whitish hairs. For the beauty of the foliage alone this shrub is worthy of inclusion in the best collections, and on a cold clay soil it succeeds well here, and annually produces its pleasing flowers with remarkable freedom.—A. E. THATCHER, *Elstree.*

WINTER WAR AGAINST FRUIT PESTS.

A SEASON never goes by without some tale of woe being told about this or that fruit crop suffering through the ravages of a common insect pest, the like of which has worried growers for generations past, and seems likely to do so in the future, in spite of the spread of entomological knowledge, and the increase of approved appliances and insecticides. British fruit growers suffer in many ways through the lack of co-operation, and the question of insect pests is a case in point. If one united warfare could be waged throughout the land against insect foes, even if it only lasted for a year, we should hear less of their depredations. Many gardeners and commercial fruit growers try their best to keep their trees free from insect pests, but they are like a drop in the ocean and work under great difficulties, when one considers how many others there are who, unconsciously perhaps, harbour and encourage their own natural enemies.

No particular foe does equal damage every season, and in times when not much mischief is done growers believe that fate has favoured them; while, on the other hand, if they suffer severely they pity themselves for their misfortune, and treat the attack in much the same way as they would a severe spring frost, or some other calamity over which they have no direct control. This lung-suffering spirit is tantalising to the man who knows that the whole thing is really a question of fight; but he suffers in consequence.

The other day I had reason to complain to a nurseryman about some trees which he had sent out with a little American blight on them, and when apologising the man pointed out that he was the victim of circumstances. He does all that he can to keep his nursery free from woolly aphis, but close by there are several old orchards belonging to a man who would scoff at the idea of using an insecticide. The trees are perfect nurseries of American blight, the white woolly matter of which, containing the aphis, is wafted on the breeze to the young stock, and causes no end of trouble and expense to the nurseryman in question. This is not a solitary instance, but one of many in which growers who would keep their trees clean are discouraged from doing so through the thoughtlessness or carelessness of their neighbours. A better knowledge of the habits and life-history of common fruit pests is wanted. There is no excuse for ignorance. There are plenty of cheap books which contain it, and the Board of Agriculture distributes free leaflets, which describe every common pest of the orchard and garden and give remedies for extermination; but knowledge only comes to those who seek it. The fact is apt to be overlooked that the dull season is only a time of armistice, and that the enemy has only gone to winter quarters in the crevices of the bark, under the scales of moss and lichen which infest so many trees, and among the leaves and under the clods of earth beneath the trees, from where it will return and continue the campaign when natural conditions are again favourable. More than once I have seen growers disconsolate, when hungry caterpillars have stripped the leaves off large breadths of Gooseberry bushes; and yet it never seemed to dawn upon the sufferers, that the pests in a chrysalid state would be secreted in hundreds amid the fallen leaves and rubbish underneath the bushes, and by clearing all this out after the fall of the foliage, damage to a certain extent would be prevented the following season.

The time to fight insect foes is when it is practicable; but the great central attack should be made in the winter, with a view to lessening the need of a campaign during summer. A clean, healthy, looking fruit tree is a delight to a good gardener, but a specimen covered with green slime and lichen growth can hardly be healthy, because the pores of the bark are choked up with filth, and the cracks and crevices are the secret hiding-places of a host of insect pests. Again, if one looks closely at the bark of many an unhealthy Apple or Pear tree, it may be seen that the vitality of the specimens is being literally sucked out of it by thousands of tiny mussel scales adhering to the stem and branches.

The best time to destroy American blight is in winter, when growth is dormant and the trees can be got at without being hampered with foliage. In the old days it was customary to limewash the stems and lower branches of fruit trees in the interest of cleanliness, and this practice is still carried on to some extent. It is a good old remedy, but better suited to orchard trees than pyramids and bushes in gardens, and an objectionable drawback in the latter places is that limewash makes the trees look unsightly. Fortunately we have got a remedy which has no unsightly effect on the appearance of the trees, and is so efficacious that it leaves the bark looking bright and clean, and its effect on the life of insect pests is deadly.

The winter wash to which I refer is the now well-known caustic solution formed by a combination of caustic soda, pearlash and water. Those who do not care to go to the trouble of preparing the mixture themselves can obtain it prepared for dilution from a horticultural sundriesman but caustic solution is easily made. To make five gallons half a pound of caustic soda should be dissolved in water in a pail and half a pound of pearlash treated in the same way in another pail. In the meantime half a pound of soft soap should be dissolved in a little boiling water, and the whole, after being poured together, be diluted to five gallons. The solution may be applied to the stems of old trees by means of a stiff brush, but young specimens can be dressed with a sprayer, the idea being to just wet all parts of the tree with a thin spray. Gloves should be worn, and care taken to keep the solution away from the clothes and flesh, on account of its caustic character. The effect is that the bark on the trees is rendered clean and bright, moss growth is destroyed, as well as scale, American blight, and other insects. A dry day should be chosen for the operation, which may be performed any time before growth commences, but not after the buds begin to swell. Finally, it may be urged that the question of winter washing of fruit trees is a most important one, and if trees generally were operated on during the dull season we should hear less of the ravages of insect foes in the spring and summer.

G. H. H.

NOTES ON HARDY PLANTS.

THE PRAIRIE CONEFLOWER (LEPACHYS COLUMNARIS).

FREQUENTLY known as *Rudbeckia columnaris*, this is one of the most striking of the Coneflowers by reason of the prominence of the central cone, a feature which has gained for it in the United States, of which it is a native, the popular name of the "Long-headed Coneflower," another name for it being the "Prairie Coneflower." It is a pretty little plant, and a true perennial in most places, although there are some gardens in which it has not proved very hardy. Probably the plants which have died have been imported from some of its more southern habitats, as it is found in Tennessee as well as in the North-West Territories, and from Minnesota, to Nebraska, Texas, and Arizona. It is to be hoped that importers of such plants will endeavour to secure them from northern habitats, as these will probably be hardier in this country. As a border plant *Lepachys columnaris* is a desirable one, with its prettily divided leaves, stems bearing single flowers of a good yellow, with a greyish

central cone. The plant is from 1 foot to 2½ feet high, and should have a rather dry and sunny position.

S. ARNOTT.

Carsethorn, by Dumfries, N.B.

CHRYSANTHEMUM MAXIMUM ROBINSONI.

THE old *Chrysanthemum maximum* has ever been a popular border plant, and quite a number of excellent varieties have been obtained from it in recent years, differing mainly in size of flower and in arrangement of petal, the pure white colouring remaining unaltered. Foremost among these newer forms stands *Robinsoni*, a handsome border plant whose flowers compare favorably with most as regards size, whilst the really distinct feature is the finely cut ray florets of considerable length, giving the elegant appearance of a single white Japanese *Chrysanthemum*, combined with great sturdiness of stem and substance of petal. It is a refined border plant, very superior to others when in good flower, and it should be welcomed for its yield of cut blossom free from the rigid outline of so many giant forms of *C. maximum*. The Shasta Daisies, of which so much was expected, appear to have been considerably overrated; they are still in the transitory stage, and until good forms (a low percentage) are separated from the bad or inferior ones there is no real gain in them. It is possible, however, that good work is being undone by incautious selection of seed-bearing plants, thus perpetuating bad forms with the good.

G. B. M.

DAFFODILS PLANTED LATE.

I THINK Daffodils are the most accommodating of all our bulbs. Last Christmas a kind friend sent me a delightful present of 1,000 mixed *Narcissi* from Barr's, and for many an hour in the cold and wet of the last week of the old year I planted *Horsfieldi*, *Mrs. Langtry*, *Emperor and Empress*, *Orange Phoenix*, *incomparabilis*, and others of that charming crowd, feeling, however, as I interred the last bulb—though Barr's name is as good as his bond—a little doubtful of their flowering after such a late planting. When I returned to my garden at the end of March the little green swords, indicating where lay my buried treasure of gold, were cleaving the brown earth and pushing strongly through the herbage at the feet of the budding Apple trees. Later sheets of gold, gold and silver, and yellow and orange greeted me, and there was hardly one of the little army that did not answer its roll-call on the green slopes or among the older residents in the wild garden. They came somewhat later, it is true, but were all the more welcome, and mingled their gold with the blue of the *Forget-me-nots*, the paler yellow of the wild *Cowslips*, and the many-hued *Anemones* that jewel the orchard grass. Do you know the smallest of all the Daffodils, a veritable fairy queen that nods its tiny head on the turf of the Biarritz golf ground? There it is pale yellow; with me it is almost white, and I suppose, owing to the superior richness of the soil, grows a little larger. I have no name for it, but I believe it has been found in English meadows.

A. DE L. L.

MIGNONETTE.

I HAVE found *Mignonette* to be by no means a trustworthy annual. It is one of those flowers with ideas of its own, and it knows what it likes, and intends to have it; it also prefers to sow itself, and if it likes the soil—and there is always an "if" in this important particular—it becomes a weed, but such a charming weed, and always welcome. A few years ago there was only one variety of *Mignonette*—and truly its sweetness was its only grace—but now we have several to choose from, therefore, why have the old weedy kind at all? The new sorts are more ornamental as well as sweeter than ever, and the giant varieties only should be cultivated—*Matchet* being one of the best. *Mignonette* likes new soil; it refuses, as a rule, to grow in old gardens, but pass by the brand-new villa and you are met by its fragrance. It evidently does not care for very rich soil, but likes

lime and rubble, of which, of course, the new villa garden is full. So, if you find your *Mignonette* is capricious—which the little darling often is—give it lime. The wild *Mignonette* grows rampant in the chalk, so I suppose its distant cousin of the garden requires the same food. The original habitat of the *Reseda odorata* was North Africa, from whence it found its way through Italy to Paris. Lord Bateman brought the seed for us from that city in 1742, and, of course, it was the French who called it "Little Darling," though, strange to say, they now speak of it as *Reseda*, leaving its pet name with us. The *Matchet Mignonette* should be sown in August for winter flowering in pots, and may be grown to any size; but it requires watching, and must not be allowed to flower before it has attained a robust growth. Plants of *Mignonette*, pot-grown, may be kept for six or seven years, flowering profusely all the winter, and scenting our rooms with its delicious perfume.

A. DE L. L.

SCABIOSA CAUCASICA AND ITS VARIETIES.

THE valuable notes on these by "G. B. M." in THE GARDEN of December 10 suggest the desirability of raising the plants from seeds. It is possible, by doing so, that really superior forms may be secured, and, at the same time, the plants are generally more vigorous than those propagated by division, as is so often practised. The flowers on plants raised from seeds differ greatly, but from a good batch of seedlings forms may be selected quite as good as *S. c. perfecta*, and in some cases even superior in size of flower and breadth of petal. The form called *amœna* is also a good one, with darker flowers than that shade which passes as the typical one; but varieties equal to it can be found among a good number of seedlings. It is not generally known that the white varieties also reproduce themselves to a great extent true to colour from seeds and from the resulting seedlings again one may select forms quite as good as *perfecta alba*. I recollect being struck with the number of good flowers of *S. c. alba* to be found among a large number of seedlings from seeds saved in a hardy plant nursery in the North, and raised in the same nursery. They were remarkably fine. I dare say some of your readers will have observed that in some gardens *Scabiosa caucasica* scarcely ever gives a perfect flower, generally some of the petals being absent, and the symmetry and beauty of the flowers are thus destroyed. This seems mainly to occur in poor soil, and in no gardens have I seen it more pronounced than in those where there is a large proportion of granite grit in the soil. "G. B. M.'s" hints as to liberal treatment for old plants are well timed, as this plant is neglected in many places, and eventually succumbs when starved.

S. ARNOTT.

STOKESIA CYANEA.

THERE are, as stated by "G. B. M." (page 313), two forms of this plant, one flowering at the end of July and through the month of August, and the other from mid-October onward. "G. B. M." stigmatises this latter form as a "useless variety," and it very probably is so in the colder districts, where the first frosts may generally precede the attainment of its full beauty, but here, in a warm spot in the south-west, it is certainly valuable, and, personally, I prefer it to the early-flowering form, since it perfects its blossoms at a time when there are fewer flowers in the open garden. This year, with the fine and calm weather experienced during the latter part of October and November, it has been particularly attractive, its large purple-blue Aster-like blossoms, produced in profusion, being quite unharmed by the weather. It is growing in front of bushes of *Aster grandiflorus*, another plant that, on account of its late blooming, is useless in the open in cold districts. In the first week of November these plants made a pretty picture, being then at their best, the deep violet flowers of the *Michaelmas Daisy* contrasting pleasingly with the lighter tints of the blossoms of the *Stokesia*.

S. W. FITZHERBERT.

COLONIAL AND FOREIGN FRUITS.

(Continued from page 428.)

PERHAPS the best known is the Granadilla (*Passiflora quadrangularis*). This fruit is oblong, sometimes 10 inches or 12 inches in length, and 6 inches in diameter. The skin is of a greenish yellow colour, and when ripe soft and leathery, containing a succulent pulp of a purple colour. *P. edulis* also has edible fruits, as its specific name implies. It is a native of Brazil but cultivated in the West Indies. The fruits are somewhat egg-shaped, measuring about 1½ inches in diameter, and as they ripen they change from green to purple. The pulp is orange-coloured. *P. maliformis*, known in the West Indies as the Sweet Calabash or Apple-fruited Granadilla, produces a larger fruit than the last named. It is of a dingy yellow colour when ripe, with a hard, thick rind, containing a very agreeable pale yellow pulp, which is often eaten in the colony with the addition of a little wine and sugar. *P. laurifolia*, which is known as the Water Lemon, is abundant in the West Indies and South America, and is cultivated for the sake of its fruit, which is about the size of a hen's egg, but rather more elongated, of a yellow colour when ripe, spotted with white. It has a delicate sub-acid, slightly aromatic flavour, possessing a distinct power of allaying thirst. It is said to last well after gathering.

A fruit that attracted considerable attention some ten years back was a Melon known as the Sarda Melon, specimens of which were received at Kew from Kabul, arriving at the beginning of January in excellent condition packed in cotton-wool. The flesh was described as being firmer than that of Melons usually cultivated in this country, and the flavour was found, after its long journey, to be excellent. With reference to this Melon the late Dr. Aitchison, in his "Notes on Products of Western Afghanistan and North-Eastern Persia," says: "Melons are largely cultivated as a field crop, but not to the same extent as the Water Melon; the variety Sarda keeps well, and is exported to India in great quantities during the winter, where it is much appreciated both by Europeans and natives. Europeans in India and elsewhere have tried to raise from seed the Sarda Melon. This has always proved a failure, the fruit produced being of a very ordinary form, and never having the flavour of the Afghan fruit. The word Sarda means cold, and subsequently came to mean the last fruits of the season left hanging on the trees when the main crop had been collected. The Melon collected from the plants that yield the Sarda whilst the season is hot and there is still no frost, is, comparatively speaking, an ordinary good Melon; but once the season is ending and night frosts have set in and the plants are beginning to be nipped, the gardeners carefully cover the fruit to prevent it from being injured by the frosts, and then collect it when not quite ripe. These fruits ripen very slowly, will keep through the whole winter, and in flavour seem to improve the longer they are kept. It is this treatment, I believe, that constitutes the difference between the ordinary Melon and the Sarda, and why gardeners out of Afghanistan and Persia have not been able to produce the fine flavoured Peshawur trade article, and

which, even in the old caravan (now railway) days, were carried in perfection to Southern India." Referring to this variety the *Kew Bulletin* says: "There seems to be no reason why it should not be imported to this country in quantity for consumption during the winter."

AVOCADO PEAR.—Under this name the fruit of *Persea gratissima* is known in tropical America and the West Indies, where the tree, which grows to a height of 25 feet to 30 feet, is common. It belongs to the order Laurineæ, and produces a fruit in size and shape like a large Pear, covered with a smooth brownish green or purplish skin, enclosing a large quantity of firm pulp of a rich buttery or marrow-like taste. It is sometimes known as Vegetable Marrow, or Midshipman's Butter. The flavour is said not to be quite agreeable to Europeans at first, but to gain upon them after a short time; in consequence those who are unaccustomed to its use often mix with the pulp wine, sugar, lime-juice, or some such flavouring agent. The fruit is in season in the West Indies from August to October. In many of the islands it enters largely into the food supply of the people.

BUFFALO BERRY (*Shepherdia argentea*).—A North American shrub belonging to the order Elæagnaceæ. It produces an abundance of small berries, somewhat resembling Red Currants, borne in clusters. They have an acid taste, and are much used in America. Quantities of these attractive-looking little fruits, preserved in bottles, were shown in the Canadian Court of the Colonial and Indian Exhibition in 1886; but so far as we are aware they have not become used in this country.

OTAHEITE GOOSEBERRY.—This is the fruit of *Phyllanthus distichus*, a tree of about 20 feet or 30 feet high, belonging to the natural order Euphorbiaceæ. It is a native of India, where it is common in gardens, as well as in Burma and the Andaman Islands, the West Indies, and other tropical countries. In India it pro-

duces, at the beginning of the hot season, numerous small reddish flowers, which are succeeded by small fleshy fruits of a green colour, and not unlike an ordinary Gooseberry. They are acid and cooling, and are much used as an article of food, either raw or cooked, in various ways, or made into preserves, and sometimes pickled. In Java they are regularly sold in the markets for preserving. In Dominica the fruits are produced in great abundance and are used chiefly in making preserves.

RAMLEH (*Baccaurea sapida*).—A small or moderate sized evergreen tree of Eastern Bengal, Burma, and the Andaman Islands. The fruit is about the size of a large Gooseberry, with a smooth skin and of a yellow colour. They have a pleasant acid taste, and are much appreciated both by Europeans and natives in the countries where they grow, being generally found in the Rangoon markets. The plant is, perhaps, better known as *Pierardia sapida*. An allied species, of Malayan origin (*Baccaurea* or *Pierardia dulcis*), has similar fruits, which are said to have a sweet, luscious pulp, and to be much in demand in Sumatra.

The foregoing list of edible fruits, though by no means exhaustive, covers a wide range.

JOHN R. JACKSON.

Claremont, Lympstone, Devon.

THE ROCK GARDEN.

ROCK GARDEN-MAKING.—XX.

WATER IN THE ROCK GARDEN (Continued).

SMALL ponds and Lily pools in connexion with rock gardens have been already mentioned on pages 329 and 330 of THE GARDEN of November 12, when hints from practical experience were given and illustrated by a rock pond at various stages during its construction. I will now consider ponds on a



POND AT GNATON HALL AS IT APPEARED IN MAY, 1904. THE PROPERTY OF MR. C. BOWES.

larger scale, the alteration of existing ones, the treatment of the shore lines, preparations for Water Lilies, the formation of islands, &c., and I will illustrate my remarks by photographs taken during the progress of recently constructed work.

LARGE PONDS.

As in Nature there is nothing large or small except by comparison, the term "large ponds" may seem somewhat vague and indefinite. It might be as well, therefore, to state that by a large pond I mean a sheet of water of at least 50 feet to 100 feet in length, and, perhaps, half that width. Ponds which are several acres in extent are perhaps more accurately termed "lakes," and are not included in this discussion.

Generally speaking, the hints already given as to natural shape, &c., of small ponds apply to those of larger size with still greater force. Ponds of square, circular, or oval shape, perhaps even with a circular island in the middle, may do well enough for a duck pond in a farmyard, for a place for cattle to drink out of, or for a strictly formal garden, but in connexion with a rock garden such shapes would make a picturesque combination of rocks and water by natural effects impossible.

Even when the pond has to be formed by putting a dam across a natural valley, there is no need to spoil a natural outline by the ugly straight line of a dam. The wall which forms the dam might quite as well be built in a curve, and if the convex side of such curve is turned towards the sheet of water, the wall will be even stronger and resist more pressure than if it were built in a straight line. But even if for some reason or other the dam must be straight, this straight line can easily be so masked by irregular banks of earth and rocks on both sides as to appear perfectly natural.

Very often in the case of large or medium-sized ponds the water supply is such that a little waste does not matter, and if the natural subsoil consists of clay, the operations mentioned for making small ponds perfectly watertight may be needless in work on a large scale. If, however, the bottom consists of porous sand or gravel, the water will percolate through this very quickly, and the securing of sides and bottom by one of the methods previously described (see THE GARDEN of November 12) then becomes necessary. The best material for the purpose is undoubtedly cement concrete.

Sometimes it so happens that the ground forming the bottom of a pond is not solid, but consists of filled-up ground, which would settle down considerably if any heavy weight were put on it, or the ground may be of so soft a nature that the cement concrete would sink into it before it had time to harden, with the result that a series of troublesome cracks would appear, which are difficult to deal with. In either case I have found it a good plan to fix a network of strong fencing wire across the bottom before the concrete is put on. As the wire is completely embedded in the cement afterwards, it helps very considerably in holding the concrete together and making cracks almost impossible. I will now say a few words on

THE TREATMENT OF THE SHORE LINE.

As a general rule it may be taken as a fact that a pond—if some portions of it are partially hidden from view—will appear larger than it really is, because, almost invariably the observer would unconsciously give imaginary extent to the hidden portions. To emphasise this effect the most prominent portions of the

shore line, such as promontories or other convex portions projecting into the water, should show bolder groups of plants or more massive rocks than the concave or receding parts, which might often be left quite bare with advantage.

Not unfrequently the sides of a pond are secured by dry walling, but, as in the case of small Lily pools, the practice of allowing the dry walling or any other kind of masonry to be visible above the water line is to be strongly condemned. A shoulder or bench below the water level, such as illustrated on page 327 of THE GARDEN, is most useful for supporting either stones, soil, or turf, and allowing these to dip right into the water, completely hiding all walling, &c., above the water line. A shore line treated on these principles will appear as being naturally continued below the water, and this is as it should be.

ISLANDS.

Many owners of ponds are anxious to have one or more islands in it. Not unfrequently a circular wall is built in the middle, the space so enclosed is filled with soil, and the island is finished! Now this method I consider altogether wrong. In Nature islands would only under most exceptional circumstances occupy the middle of a pond. In most cases they are the result of some disturbing influence on the shore, such as a landslip or the falling of massive rocks which have become detached from some projecting cliff, or by a promontory which was washed by water in such a way as to become eventually entirely separated from the shore. In the great majority of cases, therefore, we find natural islands near the shore rather than in the middle of a pond unless they were the direct result of volcanic upheavals.

The shape of islands, too, deserves our attention. Natural islands are never in the shape of a circle, but very often they are more or less wedge-shaped, with the head or blunt end turned towards the influx of the water and the sharp end directed towards the exit of the stream that feeds the pond. The reason for this is obvious. That side of the island which offers resistance to the incoming current would naturally become flattened or rounded off, while the other end, owing to the continuous grinding influence of the outgoing stream on either side, would become elongated into a sharp point.

PREPARING FOR WATER LILIES.

Water Lilies may, of course, be planted into flat baskets and then plunged into the pond in such a manner that the surface of the soil in the baskets is about 10 inches to 12 inches below water level. But I prefer another method, which for years I have used with great success. It consists in the construction of totally submerged rocky islands filled up with suitable soil to the required level of, say, 12 inches below the water level. Decaying leaves and good loam are an excellent mixture for the purpose; but in filling up this soil allowance must, of course, be made for its settling down as soon as the weight of the water is upon it.

ALTERING EXISTING PONDS.

Sometimes it may be desirable to construct a rock garden near an old pond of a shape very unsuitable for that purpose. In such a case an alteration of the shore line will be necessary, and, as an example, I will here illustrate a pond at Gnaton Hall which I remodelled only a few months ago. The first picture shows this pond with the water let out for the purpose of making alterations. It will be observed that the left side of this pond is formed by an absolutely straight wall; on the right a circular island, with a *Gunnera scabra* planted on

it, is partly visible. In the distance the straight line of the wall is lost in the dark shadows of common Laurels. The plank bridge connecting the island with the shore was rickety and dangerous. At the bottom of the pond will be seen a number of pegs marking out the proposed alteration of the straight line and the circle into more natural outlines.

Picture No. 2 shows the same pond two months later photographed, not quite but very nearly, from the same spot. From this it will be observed that the straight line on the left is completely altered; the Laurels and other rubbish were swept away, and their place is taken by a waterfall with a stepping-stone bridge in front of it. The large *Gunnera* remained intact, but the shape of the island was altered and planted with Iris and other moisture-loving plants; of the numerous Water Lilies planted only one is visible in the picture. The plants on the water margin include *Arundo Donax*, *Saxifraga peltata*, *Chelone Lyoni*, *Rodgersia podophylla*, *Senecio japonicus*, *S. tanguticus*, *Spiræa palmata*, *Iris levigata*, German Iris, *Osmundas* in variety, many *Carex* and *Scirpus*, &c. The additional rocks, turf, &c., rest on a low wall, built to within 8 inches or so of the water level, so that no walling whatever is now visible, but rocks and green sward dip naturally below the water.

Elmside, Exeter.

F. W. MEYER.

TREES AND SHRUBS.

SOME TREES AND SHRUBS FOR THEIR LEAF COLOUR.

IN November most of our deciduous trees are bare, except some Cherry trees and the Oaks and Beeches. The Tulip trees have lost many of their leaves, and those that they retain are a soft yellow. *Sassafras* bushes and little trees are brilliant in shades of amber, salmon, fawn, and orange-red. Some pasture fields, bordered with colonies of these beautiful bushes, intermingled with Blackberry shoots and Sumachs, are very gay. The fields themselves are dull grey-green, burnt up in the long autumn drought, and only the marshes and water-courses are green and fresh, and still bright with autumn flowers. There are patches of blue *Lobelia sylvatica*, *Eupatorium celestinum*, and some late Asters mingled with the common Yarrow, which is one of the most persistent of our field flowers, sometimes lasting in bloom until Christmas.

The Birches still have a sparse covering for their upper branches; the brightest green foliage still decks the Plums; and some Robinias retain their summer robes, but much the worse for wear—shrunk, faded, tattered, and forlorn. The leaves on the Robinias have never learned how to grow old gracefully. They have no gala dress in which to prank themselves for the autumn display, and look like shabby gentility at a gathering of *nouveaux riches*.

The Purple Fringe, a charming shrub, is now beautiful in full dress of orange; it is also remarkable for the exquisite soft salmon-pink hues of its translucent young leaves in April, and I know of no shrub that will give more pleasing variety in a season's growth.

On descending to the lower shrubbery we find some *Weigelas*, *Kerrias*, and *Euonymuses* still retaining green foliage. Notable also is a group of *Spiræa Thunbergii*, *Spiræa Van Houttei*, and *Rosa rugosa*, the *Spiræas* fresh green, and the *Roses* just beginning to show a hint of fawn and madeira colour.

Forsythias have a dull plum-coloured shading, and the Californian *Privets*, which have not shed a leaf, are purpling in striking contrast to a group of *Thunberg's Barberries*, cheery with sprays of orange and scattered scarlet berries, which are a godsend to the vagrant birds.

A good bushy specimen of *Enkianthus campanulatus* in this shrubbery turns first a dull maroon, and later a brilliant uniform cherry-red. Indeed, it is the Japanese and Asiatic plants that furnish most of our brilliant effects in late autumn. Besides the *Enkianthus*, the most striking plants at Rose Brake in November are the groups of Japanese Maples, the Japanese and Chinese Quinces, and *Parrotia persica*.

This last named little tree is not more than 12 feet in height, and is well clothed with handsome, somewhat Beech-like, foliage. The peculiarity of this tree is in the way in which its leaves change in the autumn. The margins of the leaves turn orange and red first, while the rest of the leaf is still green. Gradually the foliage becomes irregularly marked with shades and splashes of crimson and gold. I have long noted the fact that many of these Asiatic foreigners are the last to retain their leaves, owing, I suppose, to the difference in autumn temperature in their native haunts.

Usually our Ginkgos, or *Salisburias*, do not shed their foliage until the last of this month. It turns to a striking soft lemon-yellow before it falls; but this year all its pretty little fairy fans of leaves fell softly during a night of frost without waiting to change colour.

Coluteas are still a lively green, and so is the grass in this sheltered and comparatively moist situation; for the shrubbery borders a hollow between two gently rising little hills. *Cytisus nigricans* retains healthy leafage of a very dark plum colour, almost black. Can this deepening of the foliage be the origin of its specific title?

Nearly all *Spiræas* keep their summer dress until late, when many of them, notably *S. prunifolia* and *S. Thunbergii*, change to brilliant tints. *Spiræa lindleyana* is already losing its sunny sprays, while the little *Spiræa bumalda* and *S. callosa alba* are scarcely changed, except that their leaves have lost their pristine freshness.

Fontanesia phillyræoides is a rich dark green, and some *Hypericums* still make a pleasing spot of verdure for the eye to rest upon. The Golden Elder is golden still, and the Witch Hazel has adorned herself with tassels and fringes of gold, which she will lose by and by, while retaining her tiny inconspicuous yellow calyxes, stripped of their bright trimmings. These remain all winter to protect the ripening seed.

Chimonanthus fragrans is unchanged. It is hardy here. The white-flowered sweet-scented Southern Jessamine lives out even in zero weather, but it is always covered by a thick mulch of forest leaves. A group of *Itea virginica* is handsome in dull red, to which *Eleagnus hortensis*, with silvery foliage, forms a striking and beautiful contrast; but the pride of the grove at present is the great white Oaks, whose splendid masses of foliage are shot through and through with fire. Every day these bright flashes seem to spread and deepen.

"How small a tooth hath mined the season's heart!
How cold a touch hath set the world on fire!"

On the brow of the hill, as one leaves the lower shrubbery and saunters towards the house, stand two symmetrical spreading Dogwood trees (*Cornus florida*). One of these, the one that bears beautiful large white bloom in May, is losing most of its parti-coloured attire. The other one, which is the variety that bears large blossoms of an exquisite shade of wild rose-pink in May, always retains its foliage a week or ten days later than its neighbour. It is also much more brilliantly coloured, for while the first named Dogwood has foliage of a dullish crimson, the other sort has varied colouring of crimson, fawn, and sherry.

Our one specimen of that rather rare tree, the Chinese Quince, will probably be, as it usually is, the very last deciduous tree to hold its blood-red foliage. It grows out of a group of *Cotoneasters*, still showy in dark, rich crimson shadings.

November, in spite of its few late Roses, its flaunting display of bright *Chrysanthemums*, its gay lengths of scarlet *Salvias*, and its *passé*-looking



THE POND AT GNATON HALL AS IT APPEARED TWO MONTHS LATER.

Dahlias, touched by frost but still blooming bravely, is the month of the "melancholy days"; according to Bryant, the "saddest of the year." I think it must be more so in this part of America than in England, where no doubt the gardens are still fresh and verdant, and adorned with many flowers. But here the freshness has faded. The lady who wrote of wild *Asters* thus describes her November garden:

"Beneath the last October sun
My drooping garden lies:
A lovely woman, past her prime,
With haggard eyes.

She bloomed through many a sullen night,
Through many a sudden storm:
The breeze that fanned her tears away
Was soft and warm.

But now beneath the frost she lies
A lone, neglected spot;
Most like a heart by coldness chilled,
Where Love is not.

The butterflies that shared her youth
Share now her dim decay;
The birds that sought her in her joy
Have flown away.

But here and there amid the wreck,
The drift of leaves, appear
The hardy late *Chrysanthemums*,
To crown the year.

Strong, bright, courageous, as a smile
They cheer the withered place;
Like the last charm pale Sorrow leaves
A faded face."

DANSKE DANDRIDGE.

Shepherdstown, West Virginia, U.S.A.

SOME NOTES ON ROOTS.

DURING the last three or four weeks, while lifting various trees and shrubs, I have been much struck with the differences in activity between the roots of evergreen and deciduous subjects. Generally speaking, the roots of evergreens have been active, while those of deciduous plants have become dormant, or nearly so, depending chiefly, in the latter case, on the amount and character of the leafage. Where the leaves have nearly or entirely fallen off the roots have been at

rest, but where the foliage has been green or just on the turn the roots have been more active.

In moving Yews and Hollies, particularly in the early autumn after a few warm showers, the numbers of new roots are distinctly noticeable, especially near the surface, where the ground is warmest and dampest. I mention Hollies and Yews more especially, as the young roots of these plants are white and rather thick, and so can be more easily seen than those of some of the other evergreens. Though practically the same amount of root-action takes place with all evergreens, the young fibres are not so readily seen on some, *Coniferae* for instance, as on Yews and Hollies. This activity of the roots of evergreens in early autumn has an important bearing on the time to transplant them, as the more active the roots are the more likely is the plant to recover after being transplanted. An evergreen is never really at rest, therefore its roots are always more or less active, and in transplanting it the time when the roots are most active is the best period for moving it, always provided, of course, that the growth is fully ripe. This time is the early autumn, as soon as the growth has ripened, when the plant is full of vigour and most capable of coping with the check caused by moving it.

Deciduous subjects, on the contrary, can be moved at almost any season when the leaves are off, provided they are not going to be put on very damp ground where the roots are liable to rot before they make a fresh start. Where the ground is heavy and wet planting is best deferred until March or April. It usually happens that deciduous plants make very little growth the first season after being moved, the young shoots being short, while what leaves are produced are scanty in number and rather small in size. This is due to the fact that though the plants are rarely killed outright by removal, yet they suffer from the check given them, and for the first season are making new roots instead of much leafage. The leaves that are made are only produced in sufficient quantity to afford the help required by the roots until they have attained their proper balance in respect to the size of the tree.

In lifting various trees and shrubs, also I have noticed that the ground directly beneath evergreens

is nearly always moister in autumn than it is beneath deciduous subjects, when they are both growing in exactly the same soil and under the same conditions. I have never seen any reason given for this, but to my mind there are two, either of which, or both together, would account for it. In the first place, the leaves of deciduous trees and shrubs are, generally speaking, broad and flat, and arranged so that each leaf gets the full benefit of sunshine. Their arrangement is roughly somewhat that of the tiles on a roof, so that during rain the water runs from leaf to leaf to the outer spread of the branches, instead of passing through to the ground directly beneath the tree. In evergreens, taking the majority of cases, the leaves are so arranged that the rain comes through and falls on the ground beneath the tree. This can be seen with a Holly on a wet day, where the rain falling on the leaves is thrown more towards the main trunk than it is away from it. Old nursery hands who have worked out of doors for years always prefer a deciduous tree to an evergreen for shelter during heavy summer showers, as experience has taught them that the former do not let the water through so soon as the latter. In the second place, deciduous trees before going to rest take up all the nourishment they can find in the soil on purpose to plump up their buds and load their stems and branches with sap in readiness for the coming spring. This bears also on what I have said above about newly-moved deciduous subjects not making full-sized leaves the first season after removal. The sap that is stored up in the stems during autumn is partly used the following spring to assist in the formation of new roots instead of being almost entirely used in the making of new leaves as would have been the case if the tree had not been transplanted.

Bayshot, Surrey.

J. CLARK.

THE FLOWER GARDEN.

FOXGLOVES IN THE FLOWER BORDER.

IT is scarcely needful to extol the beauty of the garden Foxgloves, especially of the finest form of the white variety, and yet there is many a June garden in whose planting this grand plant has been overlooked. Its graceful spires will tower to a height even exceeding those of the strong-growing Delphiniums, as the picture shows, and its culture is of the easiest. Sown in spring in the reserve garden strong clumps are planted in the borders, when they are rearranged in October. G. J.

FUCHSIAS IN THE FLOWER GARDEN

AMONG the dozens of plants used in the flower garden few can compare with the Fuchsias. They

great variety of ways in which they can be used, and the varying forms and heights to which they will grow at the will of the cultivator, render them invaluable. Whether the season be wet or dry, Fuchsias grow and flower from June till the frost cuts them down or they are removed for the planting of spring flowers. Flowering as plants will when only a few inches in height to upwards of 10 feet or more, the cultivator is given plenty of scope to show his skill in filling the positions at his command. It is not difficult to associate Fuchsias with other things, as, although the flowers are conspicuous, their colouring is quieter.

Bushy plants 1 foot or 18 inches in height should be used where the beds are formal or small. Larger beds may be filled with standards or pyramids, with a groundwork of another variety of Fuchsia or some other suitable bedding plant for contrast. In some gardens specimen Fuchsias are planted out year after year; this is an excellent method where big beds have to be filled. It is as well to grow on

will root in a week or ten days. Pot off singly as soon as ready, and if kept in heat they grow rapidly. By repotting when necessary good plants can be had when required for bedding out. A few of the strongest should be selected for growing on into specimens or standards as required. Cuttings in autumn can be obtained from the plants bedded out, giving the same treatment as recommended for rooting in spring. Being more woody than the spring cuttings, they will take rather longer to root.

GENERAL TREATMENT.

Unchecked growth from first to last is the secret of success; until the desired size is obtained never allow the plants to become root-bound. Different methods of pinching will be necessary according to the shape and size of the plants required. For standards the leading shoot must be encouraged. Pinch out all side growths till the desired height is reached, then remove the point and pinch at every second pair of leaves. For large specimen plants a good foundation is necessary. The growths will need continual pinching, and it may be found necessary to pinch out the point of the leader several times to get well-balanced growth.

Old plants are very easily kept during the winter; a cellar, or out-house, where frost is excluded will be found the most suitable place for storing them, much better than under the stage in a cool greenhouse, as fire-heat will be necessary sometimes for other subjects in the house. This will have a tendency to start the Fuchsias into growth prematurely. It will be necessary to examine the plants at intervals during the winter, as if allowed to get excessively dry the wood will shrivel. In February, or early March, the plants should be introduced into



WHITE FOXGLOVES IN THE FLOWER BORDER.

a few plants each year, for when they are about five years old it is necessary to renew them, as after this age growth is not so luxuriant.

Large specimen plants in pots sunk level with the surface on the lawn or placed about on terraces form an imposing feature. Vases filled with Fuchsias are extremely pretty, some of the trailing varieties, notably Scarcity, being especially suitable. The yellow and variegated leaved varieties are suitable for colour bedding and placing amongst or as an edging to other subjects. From time to time during the summer, as the earlier flowering plants pass away, bare places will occur in the mixed borders. Fuchsias kept in pots and placed on the north side of a wall till required will be found very useful for filling up these positions.

Propagation by cuttings is the usual method of increase. Except in the production of new varieties few are raised from seed. Cuttings may be put in at any time when young growths 3 inches or 4 inches in length are obtainable, the usual times being spring and autumn. From a few plants started in a brisk heat in January plenty of cuttings can soon be obtained. Insert them in a light sandy soil, and place in a propagating frame with bottom-heat. Given proper treatment they

heat, and pruned back to within two or three joints of the previous year's pruning. When growth begins the plants in large pots, which have attained the full size required, should have a few inches of the top soil removed, and replaced with fresh compost. Shake away most of the old soil and repot, using a compost of two-thirds fibrous loam, one-third leaf-mould, sufficient sand to keep the compost open, and a sprinkling of well-decomposed cow manure. Place in an intermediate house till well covered with growth.

During the time the plants are making growth, if the weather is bright, syringing them two or three times a day will prove an assistance, and help to keep the foliage clean. Harden off and stand outside towards the end of May or the beginning of June.

Fuchsias when growing and flowering freely like plenty of water. Liquid manure, or a slight sprinkling of a good artificial manure on the beds, will be found helpful. The older and proved varieties are better for summer bedding than the majority of the more recent introductions, the flowers of which are larger and more suitable for the greenhouse. When exposed to strong winds

and heavy rains the large flowers are soon spoilt. The smaller freer-flowering varieties stand much better.

VARIETIES.

The following list includes a selection of the best for general cultivation: Ballet Girl, red calyx, white corolla; Charming, scarlet calyx, purple corolla; Earl of Beaconsfield, rosy carmine calyx, deep carmine corolla; General Roberts, rose-carmine, corolla a shade deeper; gracilis, a small-flowering red variety; Lady Heytesbury, white calyx, purple corolla; Mrs. G. Rundle, pale red calyx, salmon red corolla; Mr. H. Roberts, rose-coloured calyx, corolla a deeper shade; Rose of Castile (improved), white calyx, purple corolla; Scarcity, red, drooping habit; Wave of Life, scarlet calyx, violet-blue corolla, yellow foliage. Meteor, Sunray, and gracilis variegata are most useful variegated sorts, especially for colour bedding.

Hardy kinds must not be forgotten. For permanent beds or the fronts of shrubberies they make

weeds form practically all the attention necessary during summer. Corallia and Riccartoni are two of the best hardy Fuchsias.

A. O.

MUSA ENSETE.

Few large leaved sub-tropical plants are more effective than the Madagascar Banana. The bright red marking of the under midrib is well shown up by the rich green of its giant leaves, which do not tear so easily as those of *M. Basjoo* (*M. japonica*).

conveniently go. After being started into growth in a warm house, they should be hardened off and again planted out.

In many places the Japanese species is quite hardy; the leaves are cut by frost, but the stems throw up fresh leaves in the spring, which quickly become of full length. When about 5 feet high *M. japonica* frequently flowers; these have a pleasing fragrance, somewhat suggestive of newly-mown hay. Except that it is smaller the inflorescence is similar to that of the edible-fruiting



CATASETUM PILEATUM AUREUM. (Natural size.)

Bananas, the stout spike is at first erect, and as it elongates gradually bends over, finally hanging down alongside the stem for 18 inches or more. This species freely produces suckers even when wintered out of doors, and is very effective when grown in groups. *M. Ensete* must be propagated by seed.

Bodmin.

A. C. BARTLETT.

NEW AND RARE PLANTS.

CATASETUM PILEATUM AUREUM.

ON the 29th ult. this curious and also handsome plant was exhibited before the Orchid committee of the Royal Horticultural Society by Mr. T. B. Schlesinger, Bedales, Hayward's Heath. The flower is large and open, the lip being broad, concave, with a slight spur. The two petals are curiously formed and situated; their margins recurve into the concave upper sepal, partly hiding it, while the two lateral sepals emerge above the lip. The white column is erect, terminating

a good show and give little trouble. Except in the favoured parts of the south and south-west they have to be treated as herbaceous, being cut down annually by frost. They may be either pruned hard back and covered with ashes in winter, or the growth may be left on till March, when it should be cut back. Fork over the beds or borders, adding a little decomposed farmyard manure. Thinning out the shoots and keeping the ground free from

Both species grow more luxuriantly when planted in their summer quarters instead of being plunged in a pot or tub. They should be given a rich soil consisting of roughly broken loam, well-decayed cow manure, leaf-soil, and plenty of grit. When the leaves are blackened by frost the plants should be lifted and stored like Cannas. In the spring most of the remaining soil should be shaken off and the plants potted into as small pots as they will

in a bent point, and having two pointed appendages at the base. The colour of the whole flower is primrose-green, while in the centre of the lip, around the entrance to the shallow throat, there is a mass of deep sulphur-yellow. It was awarded a first-class certificate.

THE INDOOR GARDEN.

SOLANUM INTEGRIFOLIUM.

AS a greenhouse plant at this season of the year this plant, with its red fruit, makes a useful change from *S. capsicastrum*, so often met with. Although of little or no use as a market plant for greenhouse decoration, the fruits last on the plants for a long period. The seed should be sown in February or early in March in light rich soil, and the pans plunged in a hot-bed. When large enough the seedlings should be potted into 2½-inch pots. Keep growing freely, pot into 5-inch, and finally into 7-inch or 8-inch pots, using a compost of loam, manure from a spent hot-bed, and sand. The plants should be kept near the glass in a warm pit till the pots are filled with roots. Frequent syringing will be necessary, as they are very subject to red spider. If the plants do not break naturally the points should be pinched out at a height of from 15 inches to 18 inches. Allow two or three shoots to remain. As the flowers appear more air must be given, and weak manure water will be beneficial. The plants may be placed outside during July and August. It may be necessary to remove a few leaves to aid the ripening of the fruits and allow them to be seen better. The corrugated fruit is rich scarlet in colour, somewhat similar to and the size of a small Tomato. It is borne on the internodes singly, in pairs, and sometimes three fruits in a bunch. A group in the greenhouse at Kew is now very attractive. It is a native of Asia and Africa. *S. Worsleyi* is a closely-allied species with small egg-shaped fruits.

A. O.

RHODOCHITON VOLUBILE.

This free-flowering, cool greenhouse plant is a most useful climber, especially for the roofs of a small house. As a screen it is very effective. Although introduced from Mexico some ninety years ago, it is not met with frequently. The flower at a distance does not look unlike a *Fuchsia*. It is axillary, borne on long, thin pedicels. The name *Rhodochiton*, meaning a red cloak, refers no doubt to the large pale red calyx. The corolla is deep purple, almost black; leaves alternate, cordate, 3 inches long by 2½ inches wide; when young purplish green, attaining a brighter green with age. It grows to a height of from 15 feet to 20 feet. A plant on the roof of the greenhouse at Kew has been flowering since June. It is figured in the *Botanical Magazine*, tab. 3367. It may be propagated by seeds or cuttings. Young shoots inserted in August in a propagating frame or under a bell-glass root readily. Pot off when rooted, using a compost of loam, peat, leaf-mould, and sand. Grown on during the winter they will be ready for planting in the greenhouse in spring. It may also be planted in a warm position outside in May or June, where it will flower freely till cut down by frost.

A. O.

CALCEOLARIA INTEGRIFOLIA.

THIS, one of the true species of *Calceolaria*, has been in flower for months in a narrow border outside the Temperate house at Kew, and in the greenhouse it was also for a long time an object of considerable beauty. It is essentially of a shrubby character, forming as it does quite a bushy specimen from 3 feet to more in height, clothed with deep green ovate leaves about 3 inches in length. From the distinct roughened surface of the leaf it is sometimes known as *C. rugosa*. The flowers, which are arranged in

large branching panicles, are of a rich yellow tint, and from their quantity make a goodly show. Though quite an old plant in gardens it appears to be little known at present, and certainly merits extended cultivation. The "Kew Hand List" contains the names of several species, some of which, however, would be difficult to obtain outside a botanic garden. The list consists of the following:

C. alba, with curious narrow leaves and pure white flowers. Though by no means new it was almost unknown till given a first-class certificate by the Royal Horticultural Society in 1897. *C. amplexicaulis*, well known as a bedding plant, under which conditions its sulphur-tinted blossoms are borne in great profusion towards the end of the summer. *C. bicolor*, a rare species whose small yellow flowers are blotched with a blackish hue. *C. corymbosa*, yellow, dotted purple. *C. crenatiflora*, something like the last, but the flowers are fewer and larger, the parent of many garden forms, as is also *C. corymbosa*. *C. fuchsifolia* syn. *C. reflexa*. About twenty-five years ago this *Calceolaria* attracted a good deal of attention, firstly, from its own intrinsic beauty; and, secondly, from the fact that it was supposed to be one of the parents (*C. Pavonii* being the other) of *C. Burbidgei*, which had been then just raised. This parentage is, however, doubted by some, and the "Hand List" gives *C. Burbidgei* (*amplexicaulis* × *Pavonii*). *C. integrifolia*, above alluded to. *C. lobata*, a yellow flowered species. *C. Pavonii*, a strong grower with curious winged leaves, but from a flowering point of view it is of no particular merit. *C. violacea*, a twiggy shrub, whose blossoms are remarkable from their pale violet hue.

Besides these a species not mentioned in either the hardy or tender list is *C. plantaginea*, a herbaceous kind, hardy at least around London, that reaches a height of 1 foot to 18 inches, and bears a great profusion of golden blossoms about midsummer. The little annual *C. chelidonoides* is not particularly showy, but interesting from the way it holds its own from self-sown seedlings every year.

T.

ERANTHEMUM PULCHELLUM.

THIS is now known as *Dædalacanthus nervosus*, yet the former name is still adhered to in most gardens. The flowers are of a lovely blue, and open early in November. It is a valuable decorative plant for the warm house during the winter months, as with a little feeding it will continue to flower until quite late in spring. Young shoots root easily during March taken from plants that are cut back at the end of February for the purpose. When sufficiently rooted place the young plants in 4-inch pots, pinching out the point at the first pair of leaves, finally giving it a shift into 6-inch pots, using a mixture of loam, a little peat, and some sand. If the shoots are pinched out three times good plants will result without the aid of fire-heat from midsummer up to Michaelmas. We grow ours in an ordinary garden frame along with *Poinsettias*, *Centropogon*, *Coleus thyrsoideus*, &c. While it is in flower it looks a bit untidy unless the fading blooms are picked off, which should be done every few days.

AMARYLLIS AULICA.

THE brilliant crimson flowers of this are of much value from November onwards, whether as a pot plant or in a cut state, and those who do not happen to have the kind would do well to add it to their collection. It has long strap-shaped leaves of good substance; in fact, it should not be allowed to go to rest like the hybrids, when it will prove quite an evergreen species. After passing out of flower keep the plants in a vinery or early Peach house, where a little heat and moisture can be given it, so that it may finish its growth towards the end of April. Less water will suffice both overhead and at the root during the next three months. In August or early September the spike will be noticed pushing up, when an extra supply of water is needed, and a little weak manure water will add colour to the flowers. Repotting may either be carried out as soon as the flower spike

is noted, or it may be done immediately after it has flowered. The bulbs are very large and throw many offshoots, which soon make nice plants if treated liberally, using good fibrous loam, a little leaf-soil, soot, and silver sand. We have many just showing the two blooms which each spike carries.

Bicton.

J. MAYNE.

PENTAS CARNEA.

THIS is an old inhabitant of our gardens, and a useful plant, too, flowering as it does in midwinter. It has flesh-coloured flowers borne on the terminal growths similar to the *Bouvardia*, and can be had in flower throughout the year with a little forethought as regards pinching of the shoots. Being a native of South Africa a little heat is necessary to grow it well, and we find it does admirably if treated like *Begonia Gloire de Lorraine*. Young shoots readily root at any season. If put in during April and potted off as soon as ready, and shifted on as occasion demands, good bushy plants with a dozen or more heads of bloom can be had in pots 5½ inches or 6 inches in diameter. Pinch the shoots some half-dozen times between the months of May and mid-September. The plants should be kept regularly syringed. Loam and leaf-soil, with a sprinkling of peat and a little river sand, will grow this plant well, and if after passing out of flower it is cut back a little, and when new growth appears repotted, the plant will be in bloom again within a couple of months.

J. MAYNE.

IN former days when winter-blooming plants were not so plentiful as at the present time one frequently came across some well-grown specimens of *Pentas*. It is free growing and can easily be brought into flower for early winter. Plants that have bloomed should be cut over early in March, and when they have made new growths about an inch in length the old soil should be partly shaken away. Put them in pots a size larger, using a compost of fibrous loam, with a liberal share of leaf-soil or a little peat. Give good drainage, water sparingly at first. In the early stages of growth a night temperature of about 55° is necessary, rising in the daytime according to the weather. In July and August, when the wood is maturing, plenty of light and air should be given. During the winter months a temperature of from 50° to 55° will be enough.

Byfleet.

J. CORNHILL.

THE ROSE GARDEN.

YELLOW BANKSIAN ROSES.

WHEN grown on a sunny and sheltered wall in favourable positions this fair climber attains to much beauty in England, but even then it is not every year that it is permitted to adorn itself with its butter-gold rosettes of clustering flowers. Those who wish to realise the full luxuriance and beauty it is capable of must travel further afield and see it in Italy or on the Riviera, where it often smothers a tall tree with its growth and hangs down a tangle of golden glory from a height of 40 feet or more, that puts to shame the puny endeavours of less sunny climates. How much do we not owe to those who brought it from its Eastern home! The pretty single yellow form, presumably the wild type, was not introduced till comparatively lately. It has the merit of even greater vigour and luxuriance, and is quite a fortnight earlier than the double form. I have never seen the single in good flower in the North, but this earliness in warmer climates is an added beauty, as it hastens and prolongs the flowering season, which is all too short. Between the two kinds, however, one may

make up a full month of beauty, so that lovers of the yellow Banksian Rose should provide themselves with both the single and the double variety. There is, indeed, a second form of yellow Banksian Rose paler than the typical form, and its heads of bloom are less clustering and paler in colour, resembling exactly the double white in habit, and a little less decorative. It has, however, the faint sweet scent of Violets that is denied to the more effective type, so the *Jaune Serin* should be allowed a place where climate and space allow it to show to advantage, for the attractions of a yellow Rose, be it big or be it little, are not to be despised when coupled with so much grace as the Banksian Rose affords.

E. H. WOODALL.

THE LILAC.

(*SYRINGA VULGARIS.*)

ALTHOUGH not a true native of Britain, the common Lilac has been in cultivation here at least 300 years, and no flowering shrub, either native or foreign, except the Rose, has become more closely identified with English gardens and English country scenes. Of the latter none is more characteristic of our flowery May-time than the cottage garden with its fragrant, blossom-laden Lilacs. The common Lilac is a native of Eastern Europe, and although it appears to have been originally introduced from Persia about, or previous to, the year 1597, it was found to be a native of Southern Hungary, in the region of the Danube, especially on the chalky precipices of the Cverna Valley and on Mount Domoglet. It is not found truly indigenous further west than these localities, and it is not, as has been stated, a native of Italy, although no doubt it has become naturalised there and elsewhere. Besides the ordinary Lilac and its white variety there are many beautiful forms that have been raised in gardens with flowers double or single, and of colours ranging from purest white to a very rich red-purple. The following may be mentioned as some of the most desirable of these: *Souvenir de L. Spath* (the darkest coloured of all the Lilacs), *alba grandiflora* (a fine white), *Marie Legraye* (perhaps the finest of the whites), *Charles X.*, and *La Ville de Troyes*. Of the double-flowered ones may be mentioned *Lemoinei fl.-pl.*, *Mme. Lemoine*, and *La Tour d'Auvergne*. There are dozens more.

B.

THE KITCHEN GARDEN.

THE VALUE OF CELERY AND CELERIAC.

COOKED Celery may with advantage be eaten by those who cannot eat it in a raw state. Celery is doubtless of more value as a vegetable than many would think. Few vegetables are more delicious. I have been told that Celery is quite as valuable as Grapes or Apples when used in unlimited quantities, that it has certain medicinal qualities, and that there are few better foods for those who suffer from biliousness. My doctor friend even goes further, and says that as a tonic for the nervous system it is most valuable. I feel sure we could with advantage use all kinds of vegetables, especially green ones. Celery is not regarded as a profitable vegetable, as much of the outer leaf cannot be used, but this is not so when cooked as a vegetable, as the green parts, even the leaves when boiled, are good, but the last are more valuable for soups, as they are of stronger flavour. Celery cannot always be bought in a fresh state,

but if not frosted it will keep fresh a long time, so that if possible it should be got when firm. If wrapped in a damp paper or cloth and then placed in dry paper or in a place where the air cannot reach it, it keeps fresh much longer. I have kept roots six weeks in the spring in a cool store quite dark, the heads wrapped in paper, except the green portion, and the roots just touching the water. In spring, when the weather becomes warmer, Celery when lifted may be kept some time; it becomes tough and flavourless in the growing quarters.

Just a note as to the cooking, and here I may be taken to task, as cooking is not connected with the culture, except that we are often blamed for poor vegetables when the cooking is at fault. The common way of serving whole Celery is in a stewed form, and served with white sauce or brown gravy it is delicious. Few vegetables are more appetising than Celeriac, the Turnip-rooted Celery, which is even more solid than the ordinary Celery, and much liked. This can be cut in slices and fried or served cold. On the Continent Celeriac is a favourite winter vegetable, and with advantage could be more largely grown in this country. I have referred to stewed or boiled Celery, and Celery cooked in the same way as Seakale is excellent. Celeriac, though closely allied, is quite a different dish, but of great value. The root is the edible portion, not the stalk, and when the roots are lifted and stored they keep well until the spring.

Fried Celery is a dish not much known. The white part is used and cut in lengths of from 3 inches to 5 inches, sprinkled with salt, dipped in an egg well beaten, covered with breadcrumbs, and allowed to dry, as much of the egg and crumbs being used as possible. The lengths are then fried in boiling fat and served very hot. Another way is to cut in lengths and boil for half an hour in brown gravy and serve on toast, and for this purpose the solid or root portion is delicious. The Celeriac may with advantage be used in this way, cut in slices half an inch thick, and served as advised. Two large pieces of cut Celeriac will cover a small round of toast.

Baked Celery is liked by many, and this is prepared by placing the stalks cut up small in good stock, then adding salt and flour to thicken, first cooking it for half an hour before the last two are added. Many also use butter freely with the flour. Celery and cheese are by no means a poor dish, and here Celeriac may be used. The Celery is cut in lengths and partly cooked in water. Then place in a dish, cover over with breadcrumbs and finely grated cheese, and add a few lumps of butter, salt, and other seasoning. Bake for a quarter of an hour and serve hot. This is a very

nice dish after the sweets are served. Celery chopped fine may also be used as stuffing with breadcrumbs and butter. This is very good with chicken, and the green portion may be used for this purpose. Doubtless there are many other ways of using this vegetable. For instance, the roots of large Celery or Celeriac may be served like large Onions braised with rich gravy, and the tops come in useful for other purposes.

G. WYTHES.

POTATO EASTERN STAR.

AMONG the large number of new Potatoes seen during the past season the above variety will, I feel certain, take a foremost position when introduced to the public, not only as an exhibition variety, but, what is of far more importance, its table qualities are all one could desire. The parentage will almost ensure this, being Windsor Castle and Snowdrop. Grown under equal conditions, the raiser, Mr. J. H. Ridgewell, of Potato fame, assures me that from forty sets of this and Northern Star he obtained $\frac{1}{2}$ wt. more from the latter, and no trace of disease. Mr. Ridgewell staged a very fine dish of it at the late National Potato Show held at the Crystal Palace, and its taking appearance called forth much favourable comment; it appears to have the qualifications of a first-class Potato. High table qualities should be the aim of all Potato raisers, for without this, however handsome a Potato, it is of little value. Far too many of the present day varieties are practically worthless when cooked.

E. BECKETT.



LILAC MARIE LEGRAYE.

POTATO SUTTON'S DISCOVERY.

Of the many new Potatoes recently brought into commerce none has proved more prolific or of better flavour than the above. It is one of the many good things sent out by the firm of Messrs. Sutton and Sons, and one may rely on the fact that it would be thoroughly well tested before being placed on the market. I obtained 2lb. of this Potato for trial early in the year, and with no artificial propagation, merely cutting up the largest of the tubers before planting, the yield was 73lb. in all. There were very few small ones, and all the tubers turned out with a good skin and no trace of disease. The haulm grew tall and branching, with a dark green colour, and was rather late in ripening. One can confidently predict a good future for this Potato as a standard maincrop variety.

Drumpellier, Coatbridge. P. S. FOLLWELL.

LIME FOR THE GARDEN.

LIME is the best manure that can be applied to some soils, for it is not only a necessary plant food in itself, but it sets free other plant foods already existing in the soil in an unavailable condition, though in many soils it exists in such abundance as chalk (*i.e.*, carbonate of lime) that any application of it is quite unnecessary. Where garden soil has been well manured for many years it is almost certain to become poor in lime, even though there may be plenty in the subsoil. Every time the rain reaches the subsoil it carries down with it some of the chalk from the surface in solution. The more highly the ground is manured with animal manure, the greater the amount of lime likely to be lost in this way. Some artificial manures, too, make great demands upon the lime of the soil, *e.g.*, superphosphate of lime and sulphate of ammonia.

It may be as well at the outset to mention the valuable purposes which lime serves in the soil. It provides a real plant food. The ash of the Gooseberry contains 12 per cent. to 14 per cent. of lime; that of the Apple 4 per cent. to 8 per cent., according to size; and that of the Plum 10 per cent. to 15 per cent. It strengthens the stems and woody portions of trees, producing short-jointed growth, and hastens the time of maturation of both wood and fruit. It serves to counteract the sourness in the soil which is caused by the breaking up of organic matter into carbonic acid, &c., and as the putrefactive germs cannot carry on their work in an acid medium this is of great importance. It is essential for nitrification—the conversion of ammonia into nitrate, this latter being the only form in which nitrogen is absorbed by the plant to any extent. When nitric acid is formed it unites with lime to form nitrate of lime instead of going off into the air. It renders available much plant food which is locked up in the soil, as mentioned above, especially nitrogen and potash, setting the latter free by decomposing or breaking up the minerals containing it. It serves to retain potash and ammonia in the soil by changing and modifying their form.

In clay soils it coagulates the clay and renders it friable, thereby making the soil of better texture. It checks many diseases and pests in the soil, such as clubbing and galling, Turnip flea, &c. Lastly, the presence of a sufficiency of lime in the soil is necessary if the application of superphosphate of lime is not to be injurious to the tender rootlets of plants.

Lime being so important, it behoves every gardener to know if his soil is in need of it. Mr. A. D. Hall, in his book on "The Soil," gives the percentages of lime as carbonate in the surface soil of certain typical agricultural soils, and these may be interesting to some. On the London clay formation heavy clay contained .35 per cent. of lime, and clay loam .06 only. Gault clay gave .04 per cent., calcareous loam 3.7 (subsoil 14.9 per cent.), red sandstone .96, the lower greensand .2, and the millstone grit .26 per cent. It is estimated that .1 per cent. means from a ton to a ton and a-half of lime in the top foot of soil on an acre of ground,

and any soil containing less than .3 per cent. (some say .4 or .5) needs to be limed if it is to be brought to a high state of productivity by manuring. It must be borne in mind, too, that an agricultural soil containing .35 per cent. of lime as carbonate (*i.e.*, chalk) will, after a few years' heavy animal manuring and cropping, contain a good deal less than this. On such soils much organic manure is wasted, as so much of it only goes to increase the store of humus in the soil and does not become available for the plants' needs, whereas lime would render any other manure except, perhaps, phosphate unnecessary for a couple of years or more.

Fortunately, anyone can test the needs of his soil in this respect for himself without getting a detailed chemical analysis. If some soil is taken from several different parts of the garden and well mixed together, a small portion of the mixture put into a test-tube or even into a tumbler, and some hydrochloric acid poured upon it, it should effervesce freely if there is a sufficiency of lime present. If it only slightly effervesces or not at all the first thing to do is to apply lime in some form or other to that soil. The form in which it will be applied will depend upon the ease and cheapness with which the different forms can be obtained, though all do not take effect with the same rapidity.

Where a garden soil is deficient in chalk through ages of manuring and cultivation, but there is plenty of chalk 2 feet or 3 feet down, the fertility of the soil can be much improved by bringing a little of the subsoil to the surface and spreading it over the soil every year. This can often be done without much extra labour when stations are being prepared for planting trees, &c.

When chalk is thoroughly burned it gives off 44 per cent. of its weight as carbon dioxide, the remaining 56 per cent. being quicklime. If the soil is very heavy quicklime may be applied with advantage, as it will coagulate the clay and render it friable. Slaked lime (*i.e.*, the fifty-six parts of quicklime united with eighteen parts of water) is more generally used, and it has the advantage of being a very fine powder when freshly slaked. Both should be applied in the winter, as they are injurious to the roots of growing plants. If quicklime is used, about 8lb. to 40 square yards is a sufficient dressing, but when slaked lime is used, which is not only less active, but has one-fourth of its weight water, 12lb. or 15lb. may be applied to 40 square yards.

On heavy soils needing lime these applications will result in the liberation of vast quantities of hitherto unavailable plant food. On a sour soil the products of decomposition—carbonic, nitric, and humic acids—preserve the organic matter from further waste, but when lime is applied it neutralises these acids, and decomposition goes on again at a great pace.

On light soils it is safer and better to apply lime in the form of chalk. It should be broken up into fairly small lumps and well mixed with the surface soil, 1lb. to 2lb. to the square yard (*i.e.*, 2 tons to 4 tons to the acre) being applied. The lumps lying upon or near the surface during the winter will become thoroughly disintegrated by the frost and rain. Gas lime is the most easily obtained form of lime in some places, and is a cheap and valuable manure, but very dangerous, as it contains compounds of sulphur, which, if applied to the soil imprudently, may render the soil unfit to grow anything for a year. If applied at the rate of 10lb. to 40 square yards in the autumn or early winter it will prove a beneficial application.

It is not so valuable, weight for weight, in some respects as lime or chalk, as by the time it has lost its dangerous properties it becomes chiefly gypsum, which, being itself a salt, does not neutralise the acids of the soil, at least until it breaks up. Gypsum itself (sulphate of lime) is very good for clay soils which have been heavily manured for some years, and should be applied at the same rate as the gas lime. It is also an excellent material to mix with the manure heap to prevent the ammonia from escaping into the air. The carbonate of ammonia of the manure unites with the sulphate of lime and we get sulphate of ammonia and carbonate of lime. Its effect in liberating the potash in the soil is greater than the effect of lime.

In whatever form the lime is applied it will have a beneficial effect in lessening the multitudes of pests which thrive in a soil containing large reserves of animal manures. In such a soil the roots of plants are often so mutilated by various things that they are unable to make full use of the store of food provided for them. Notably is this the case with the parasite which produces clubbing and galling among the members of the Cabbage family. Many flowers, too, such as Canterbury Bells, Primroses, Antirrhinums, Carnations, Fox-gloves, &c., often get their roots eaten completely away in such soils. The effect of quicklime upon slugs is known to every gardener, a very slight sprinkling being sufficient to curl them up. It is said that two applications are necessary, as the slugs are able to counteract the first by exuding lime, but cannot cope with a second.

In the application of quicklime and gas lime care must be used not to overdo it. Though lime in small doses accelerates decomposition in the soil, large doses may stop it altogether, and the soil be rendered barren for a year or more. The preservative effect of lime in sufficient quantity is well known, but we do not want this action upon the soil.

ALGER PETTS.

A GENERAL CALENDAR.

THE end of December is a time of rest for most plants, but there is no rest for the true gardener. He can always find something necessary to do. There is the planting to complete, lawns to finish, paths to mend, drains to lay down, and many vacant plots to dig up. If not done in autumn, advantage can be taken of the slack time to train and tie in climbing Roses. This work is often left until the spring, when work comes in with a rush, and the result is that this necessary work either gets half done, or is neglected altogether.

Store and greenhouse.—The work here is rather of a preparatory character for more active operations next month, but in the meantime Palms, Dracaenas, Crotons, and other foliage plants may receive a good cleaning with warm water, soft soap, and a piece of sponge, for during the winter many of these plants become not only greasy and dirty, but infested with various insects. At the same time, a fumigation of the house would assist in keeping down the pests. The regulation of the temperature in the stove is of more importance during this and the next month than at any other period of the year. An even night temperature of about 60° should be maintained, for when considerable fluctuations occur, more harm is done than we sometimes imagine.

Camellias.—These are our greatest resource for flowers during the early months of the year, and if they are to develop their blooms freely, a little weak liquid manure should be given, which would assist them in that process. To preserve the young wood on small choice plants, screw off the blooms and wire them on to a sprig of foliage cut from another Camellia plant of inferior or stronger habit.

Caladium bulbs.—Those who set store upon these handsome, fine-foliaged plants will do well to keep an eye upon them just now. If they are still in the pots in which they made their growth, they should now be shaken out and carefully cleaned. If there be any symptoms of dry rot at the base it should be removed. This disease will occur under the best management at times. The best method of keeping Caladium bulbs is to cover them in silver sand after having cleaned them. Then they should be kept in a warm place, not far removed from the hot-water pipes being a safe position. Here they may require a little water occasionally to keep them from shrivelling.

Annuals for summer cutting.—A piece of ground should now be prepared for these. A well-dressed and deeply-dug border is the most suitable, deep tith, and what is commonly known as a good heart in the soil, being answerable not only for better quality in the individual flower, but for a much

longer display. A few really good things for the purpose are Carters' Plume Asters, White Spiral Candytuft, Marguerite Carnations, single Clarkias and Cornflowers, Gaillardias, Ten-week Stocks (the branching habit of these makes them very valuable), Scabious, miniature single Sunflowers, Sweet Peas, and plenty of Mignonette. When ordering annuals care should be taken to secure the best strains of different varieties, and to see they are likely to be adapted for the purposes of which they are required.

Preserving Poinsettias in a cut state.—Just now, when flowers are rather scarce, this hint may be useful. Poinsettias may be preserved if, immediately after they are cut, the ends, to the length of about an inch, are immersed in boiling water for two minutes; this does not prevent the absorption of water by the stems, consequently the bright green foliage, as well as the coloured bracts, are preserved in a perfectly fresh state.

Norwich.

T. B. FIELD.

PACKING GRAPES.

NO work associated with Grape culture, whether intended for market or for private consumption, is more important than a practical knowledge of the best method of packing. All the year's work may be undone in a few minutes by careless packing. It is to the perfection of size of berry, colour, and bloom that the greatest effort of every good cultivator is directed, and to have these qualities destroyed by carelessness at the last moment is unpardonable. With reference to the work of placing the Grapes on the table at home in good condition there is a certain amount of packing needed even here, as they have to be carried from the garden to the house, whether the distance be long or short. The first thing to provide is a cross-handled basket 6 inches deep, and large enough to hold six or seven good sized bunches, each weighing say from 1½ lb. to 2 lb. I prefer to have two baskets to carry 2½ lb. of Grapes than one. On the bottom of the basket place a layer of wood wool half an inch thick, and upon this and round the sides a sheet of soft packing paper. Take the basket ready prepared into the vinery from which the Grapes are to be cut. Disentangle the bunch about to be severed from any string which may have been used to support the bunch. Then cut the shoot to within 3 inches of the bunch on either side of it. I think that a bunch of Grapes without a portion of the shoot attached loses a good deal in appearance. For carrying a short distance lay the bunches in the basket so that they do not touch each other. The gardener should place them on the dessert dishes or fruit stand, taking care to lay them with the same side downwards as in the basket. If this part of the work has been carried out carefully the bunches will appear on the table with the same perfection of bloom as when hanging on the vine. I have been horrified at seeing some inexperienced person in the house take hold of the bunch instead of the stalk, and crush it into position on the dish, utterly regardless of the bloom.

As regards packing Grapes for transit by rail, whether for sale or for private use, it is of course not possible for the Grapes to arrive in the same perfect condition as when delivered by hand. Yet by knowing the best method of packing and by careful handling, it is wonderful in what splendid condition Grapes now reach



ALICANTE GRAPES IN HAMPER AS PACKED FOR MARKET.

the market. It was the custom some few years ago to pack Grapes in boxes with separate compartments for each bunch, the same as those used for packing Peaches, with the result that they were usually received in a deplorable plight. That system, I am glad to say, is no longer practised, but has given way to a much simpler and better method. For the boxes cross-handled baskets have been substituted.

One of the chief advantages claimed for this improved method is that the baskets cannot be turned upside down by porters and others responsible for handling them. These must be carried by the handle, hence the immunity from so much damage. The practice of packing Grapes for market most commonly in vogue among growers who can deliver the fruit by road is first to place the Grapes in shallow baskets or trays (which are known in the market as baby baskets). These are in turn placed in flat baskets, large and deep enough to hold them with lids to close over, and are then taken to market, as shown in the illustration.

Another way of packing Grapes, if they have to be sent a considerable distance by rail, is so to arrange them that the top side of the bunch does not come in contact with anything likely to rub off the bloom. It is to line the basket in this case the same as recommended in the former one, with wood shavings both bottom and sides, covering with tissue paper specially prepared for packing fruit, then to place the bunches round the sides of the basket, allowing the base of the bunch to rest on the bottom, at the same time securing the top of the bunch to the rim of the basket by tying the piece of shoot attached to each bunch with a piece of string. Take care that the tops of the bunches are placed lower than the rim, so that the paper cover placed over the basket may not come in contact with the berries to rub them. This is a safe way of packing Grapes when they have to travel a long distance, as with a covering of stout brown paper over the basket, leaving the handle bare

and free, no harm can come to the fruit with ordinary care.

Another method favoured by many gardeners is to have a similar basket about 10 inches deep, large enough to hold from 12 lb. to 15 lb. of Grapes, and prepared in the same way as regards lining with packing. Place the empty basket partly on end at an angle, say, of 60°, building the bunches from the bottom one upon the other until the basket is full, taking care that each bunch rests fairly tightly against the other as the work proceeds to prevent oscillation in travelling. More fruit can be packed in the same space in this way than in the other previously mentioned, and in general practice this is found an excellent and economical system. Some growers prefer to wrap each bunch—before placing in the basket—in tissue paper, but I have found no advantage in this. Grapes packed in either of these ways, when the top of the basket is secured with a covering of strong brown paper fastened down with string, will travel any reasonable distance without injury to bloom or berry. Printed address labels should be used, indicating in bold letters the contents of the baskets, so as to give no excuse for rough usage on the way. OWEN THOMAS.

GARDENING OF THE WEEK.

INDOOR GARDEN.

PROPAGATION.

PROPGATE by cuttings, as well as leaves, the various winter-flowering Begonias, for the earliest rooted have a good opportunity to grow and form strong plants by next autumn. There is no difficulty in rooting quickly and satisfactorily the tops of Crotons, which may be taken off and inserted in sandy soil in 2½-inch pots, afterwards to be plunged in a bottom-heat of 80° to 95°. To keep the surroundings moist and close plunge them in a frame placed upon the propagating bed. It is easy also to have plants large enough for dinner table

use in a short time by rooting the large tops while on the plants, which is done by notching the stems immediately below the crown leaves of plants that have lost their bottom foliage. The notches afterwards are tightly packed with sand, the air being excluded from the cut part by placing moss over it, which should be tightly bound and tied in position. Keep the moss and the plants in a hot-house; then roots will soon form. Sever the rooted tops from the parent plants and repot them into suitable sized pots. Increase the stock of *Dracænas* by this means also.

As the earliest inserted cuttings of Tree Carnations form roots, repot them as soon as possible afterwards. To have fine plants of *Coleus* by early summer insert the cuttings at once, and they will readily root if plunged in a bottom-heat. To ensure having a good stock of trailing plants for decorative work, insert periodically a few cuttings of *Panicum*, *Fittonia*, *Tradescantia*, &c. They are the most useful when propagated in the pots in which they are to be used, 3-inch pots being perhaps the best adaptable, four to five cuttings in each pot. *Cinerarias* need air in abundance at all times, and a light shade during sunny weather will keep their large leaves from flagging. Keep them free from green fly and thrips.

MANDEVILLA SUAVEOLENS.

This is a creeper that should at this season be given abundance of air or it will often fail to flower. The growth should be well matured and must now be pruned, no weak shoots being left to crowd the stronger growth that under favourable circumstances would be bound to flower.

J. P. LEADBETTER.

Tranby Croft Gardens, Hull.

FRUIT GARDEN.

LATE GRAPES.

THE Grape room should be prepared, the bottles filled with soft water, and the Grapes bottled. The sooner this is done in the new year the better. In a dry, cool atmosphere, with good ventilation and a temperature of about 45°, the Grapes will keep in good condition for months when well ripened. Cut each bunch carefully with as much wood above and below as possible, and remove decayed berries before fixing in the bottle. Afterwards prune the Vines and clean them, wash the house and top-dress the borders, open wide the ventilators so that the Vines may have complete rest. The border not recently having had much water should now be thoroughly watered.

MELONS.

If early Melons are wanted, and they are often more appreciated early in May than later when other fruits are plentiful, have the house well washed and painted, if necessary, and the walls washed with hot limewash. Plenty of top and bottom-heat is essential. Make up a bed of short horse litter and leaves, chiefly the latter, over the hot-water pipes. If planting out is preferred, form a ridge of fairly strong loam, wood ashes, and lime rubble, and make thoroughly firm. When the soil is warm through, sow seeds about 18 inches apart, two or three seeds in each hole, and remove the weakest plants later. Select strong growing and free setting varieties for early work, maintain a moist atmosphere, with a night temperature of 65° to 70°, with a rise of 10° during day.

PROTECTING FIG TREES.

If the protection of Fig trees is considered necessary the branches should be untied and brought together and covered with mats or straw. The chief object is to keep the wood dry, and when well ripened it will withstand severe frosts without injury. The roots should also be protected with a liberal covering of dry Bracken or straw.

THE FRUIT ROOM.

The fruits should be examined frequently, and all decayed ones removed, as these often make others near by decay. Complaints are general of fruit keeping badly, and Pears especially are ripening earlier than usual. Give a little ventilation when the weather is favourable and cover up

doors and windows when severe frosts occur to maintain as even a temperature as possible.

Impney Gardens, Droitwich. F. JORDAN.

KITCHEN GARDEN.

CUCUMBERS.

THE weather lately has not been of the best for this crop. The dull and sunless days soon tell on these plants; the growth becomes thin and weakly. Much may be done if careful attention is paid to the plants and borders. Sprinkle the beds frequently with light dressings of loamy soil to which has been added some leaf-soil and bone-meal. Where a vigorous root-action is kept up the plants will soon recover after the days begin to lengthen. No liquid or artificial manure need be given if the beds are regularly top-dressed. The roof-glass should be frequently washed down. Where winter Cucumbers are grown on hot-bed material careful attention must be paid to watering. Little syringing will be required at this period, but the floors and walls may be damped daily. The temperature should be about 70°, falling a few degrees in very severe weather. See that the temperature of the water applied to the roots is about 70°. The pinching of the shoots will require careful attention, and remove fruits whenever they are of a usable size.

SPINACH AND SPINACH BEET.

If this crop was not sown too late in the year there will be good growth on the plants. In gathering this crop the largest leaves only should be picked, and care should be taken not to denude the plants too severely. In dry weather the soil should be stirred frequently. Early in the year a slight dressing of bone-meal or some good fertiliser should be given and hoed in. Where this vegetable is in much demand Spinach Beet should also be grown, as it does well in cold, damp gardens where the Prickly Spinach often fails to stand the winter. The leaves may be gathered and used separately or mixed together with the Spinach proper.

CARROTS AND TURNIPS.

Where early crops of these are grown, and without the aid of hot-water apparatus, it will be necessary to make preparations for the making of hot-beds. The fermenting material should be thrown into a large heap and turned several times before building. The soil for Carrots should be of a light sandy nature, mixed with some soot and wood ashes. The surface of the bed should be raised to within 12 inches of the glass. When the soil has been warmed throughout the seeds may be sown either in rows or broadcast. The best variety for this work is Sutton's Forcing, and a good Turnip is Early Milan.

SEEDS.

The seed catalogues are now arriving, and before ordering all the old seeds should be tested. Count a certain number of seeds and sow in small pots, placing them in a brisk heat. Should they show weak germinating power they should be discarded. Clean out the store-room, and have everything ready for a new supply.

THOMAS HAY.

Hopetoun House Gardens, South Queensferry.

ORCHIDS.

ODONTOGLOSSUM URO-SKINNERI.

THANKS to recent importations this beautiful Orchid is more plentiful; it is well worth growing in quantity. The new growths are sufficiently forward now to allow repotting being done in a mixture of two parts each of fibrous peat and chopped sphagnum and one part leaf-soil well mixed with a little coarse sand and some small crocks. Pots should be the receptacles used, half filling them with chopped rhizomes. The potting should be done very lightly, so that the thick, fleshy roots may easily enter the compost. I like top-dressing with chopped sphagnum; then, if the surface moss is kept humid to encourage its growth, an occasional watering about every three weeks will be ample till the new pseudo-bulb shows signs of swelling. A position in the coolest part of the intermediate or the warmest end of the cool house is suitable.

MASDEVALLIA TOVARENSIS.

This beautiful albino, that will soon be commencing to flower, is frequently very troublesome at this season, by reason of its leaves suddenly damping off. This to a large extent may be avoided by placing the plants in a light house such as the coolest end of the intermediate house, and afford water only when the material in which they are grown is dry. If the house in which they are at this season is continually damp, the leaves will probably fall off, so the first point is to see that the house is well ventilated.

HYBRID ORCHIDS.

With the introduction of so many lovely sorts, especially of *Lælias* and *Cattleyas*, it is possible to have Orchids in flower all the year. Many of them have no proper flowering time like the old species. Some rest, some flower, and some grow at the same season, so the grower must treat each plant accordingly. The parents should also be known, so that at least to some degree the treatment necessary for them may be partially meted out to the hybrid. Especially is this necessary in those derived from *Lælia cinnabarina* and *Brassavola digbyana* crossed with other *Lælias* and *Cattleyas*. The hybrids require to be kept fairly on the dry side except when they are growing and rooting freely. Hybrids, taking them generally, are of more easy culture than species, and, now that many may be obtained at reasonable prices, I would advise all growers of Orchids to start the new year by adding some to their collections. To those wishing to raise seedlings I may say this is one of the most fascinating parts of Orchid growing. Some of the finest hybrids from which to obtain pollen must be grown, otherwise the hybridist will find when his seedlings flower that he is only where others were years before. In this age of progress it should be the aim of all Orchid growers to improve their plants as years go by.

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

CORRESPONDENCE.

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

HARDINESS OF ROMNEYA COULTERI AND OSTROWSKIA MAGNIFICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice that in Chapter VII. of "Colour in the Border" the writer refrains from recommending the above plants on account of their tenderness. I am perfectly in accord with her that they are not plants to be included in the general list for the ordinary herbaceous border, for both often prove extremely difficult to manage. I, however, doubt their failure being due to tenderness. As reference to former volumes of THE GARDEN will show, *Romneya Coulteri* has proved hardy in the open in Scotland, in North Wales, in the neighbourhood of Leeds, and in other comparatively cold districts, while *Ostrowskia magnifica* flourishes in Northamptonshire, where it attains the height of about 7 feet, and we are told that it succeeds in New York State, which has the disadvantage of a winter climate far colder than our own. In the article accompanying the coloured plate of *Ostrowskia magnifica* (THE GARDEN, Vol. XXXIV., page 604) it is stated to be "capable of withstanding the most severe cold of our climate," as, indeed, it ought to be, seeing that it is a native of the higher mountains of Eastern Bokhara. Even in the south-west both these plants, in some instances, defy successful culture, although every care is taken for their well-being. In a garden in the neighbourhood of Penzance, where Australian shrubs thrive to perfection, *Romneya Coulteri*, though tried again and again, absolutely refuses to become established, and in several gardens that I am acquainted with *Ostrowskia magnifica* has proved a complete disappointment. However, both are such exceptionally lovely flowers that they are well worth a trial. It is difficult to say which is

the most beautiful, the Romneya with its wide-spread, pure white, crepe-like blossoms, with their central boss of gold, and delicate fragrance, or the great Bellflower, with its satin-petalled cups, lavender or white, fully 6 inches across. The last-named flowers last marvellously in water, blossoms out this year when partially expanded retaining their beauty indoors for fully a fortnight. I am unable to indicate any royal road to success in the case of the Romneya, though it, happily, does well with me, but I believe a great point with the *Ostrowskia* is to protect the roots from excessive moisture during the plant's long period of rest by a hand-light or frame. S. W. FITZHERBERT.

YELLOW-FLESHED AND ASHLEAF POTATOES TO EAT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The grateful thanks of those who are not heavily struck with the Potato "disease" is due to the Rev. G. H. Engleheart for the brave stand he makes—and at such a time—in favour of yellow-fleshed Potatoes in general and Ashleaf varieties in particular. No variety I am acquainted with possesses such a decided Potato flavour as Myatt's Ashleaf, except the black Potato Congo, and for obvious reasons it will never be largely grown. So superior do we find Myatt's to the general run of Potatoes that now I grow none but this—forced or natural—for my employer's table. J. R.

ROSE FELICITE PERPETUE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In a little handbook recently issued by a committee of the National Rose Society, under the title of "Hints on Planting Roses," which is full of most useful hints to beginners in Rose-growing, not the least useful feature is a list of sixty best Roses for garden decoration, and I am delighted to find that the beautiful climbing Rose Félicité Perpétue ranks as the best of the summer-flowering White Ramblers, and this it undoubtedly is. The accompanying photograph shows what an excellent variety it is for rustic arches and pergolas. The plants photographed have been planted only four years, and both last year and this the arch has been a veritable picture during June and July. The illustration suggests the question. Why are our churchyards so often planted with sombre evergreens with nothing bright in the way of Roses and flowering shrubs to relieve them? Surely, no place can be more appropriate than "God's acre" for the many beautiful flowering plants now in cultivation.

Cirencester.

E. A. JEFFERIES.

MISCELLANEOUS.

CULTIVATION OF CACTI.

(In reply to L. Vrenod.)

IN the first place, then, the name Cactus is popularly applied to all the varying genera in the extensive natural order Cactaceæ, which embraces *Opuntia*, *Cereus*, *Mammillaria*, *Echinopsis*, *Echinocactus*, *Phyllocactus*, *Melocactus*, *Epiphyllum*, and many more. In *Epiphyllum*, *Opuntia*, *Phyllocactus*, &c., the plants are composed of fleshy flattened branches or stems. In *Mammillaria*, *Echinopsis*, *Echinocactus*, &c., a totally distinct growth is seen. *Mammillaria* has a nearly ball-like outline, the plants appearing in groups. This genus is a most extensive one, and in its entirety may safely be regarded unique by reason of the remarkable symmetry of outline and the spirally disposed nipple-like tubercles that crowd and cover the exterior of the plant. The flowers are generally small and sometimes insignificant, but the plants are worth growing for their beauty of form alone. In *Echinopsis* the plant is globular or sub-globular or cylindrical, and arranged on the ridge and furrow plan, the ridge or ribs being protected with bunches of sharp spines. The flowers of this group are of extreme beauty and delicacy, 6 inches to 8 inches long in some kinds, sepals

numerous. The flowers are very fragrant, and vary from funnel shape to trumpet shape. An interesting characteristic is that the stamens are arranged in two series, the one set usually flat and adherent to the tube, the other set free and moving with the least touch. These plants prefer a warmer position than most kinds. The *Echinocactus* may briefly be said to be a modified form of the last, with, in some species, the spiral arrangement of the *Mammillaria* externally. This will give you some idea of the best known genera, the species of which are found from Texas and California to Peru and Brazil, though, doubtless, most abundant in Mexico. The majority may be well grown in a rather dry arid temperature of 45° to 50° in winter, during which season little moisture should be applied to the roots. With the warmer conditions of summer and the appearance of new growth more water may be given. In this connexion it is worth remarking by reason of the external structure of many kinds—the ridge and furrow of the *Echinopsis* for example—forming a conduit to the roots, that no haphazard watering overhead or indiscriminate syringing should be indulged in, for the plants of nearly all genera are very sparse rooting, and therefore unable to utilise free supplies of moisture.

The potting is best done in May and June, many kinds, however, are best for several years without disturbance. The finest potting compost is of strong loam with silver sand, old mortar, and soft brick, broken up finely in about equal parts. The drainage, independently of the open nature of this soil mixture, should be always abundant. Potting



ROSE FELICITE PERPETUE IN CHURCHYARD.

should be firmly done. In case of basal decay the best plan is to shake the affected plant free of soil and, securing some powder dry silver sand, place the plant in a shallow box on a shelf near the glass in full sun for a time. An interesting item just now is the grafting of some kinds, the *Epiphyllums* on the *Pereskia* for example, the stocks being first well established. As you are interested in these plants you should obtain Mr. Lewis Castle's book on "Cactaceous Plants." E. J.

SOCIETIES.

NATIONAL DAHLIA SOCIETY.

REPORT FOR 1904.

THE past season, though less generally unfavourable than its predecessor, was in many respects a trying one for Dahlia growers. During the whole of the three summer months an absolute drought prevailed in most districts, and the early autumn was marked by successive cold snaps, which brought the season for first-class blooms to an unusually early close.

The annual exhibition was held on September 2 and 3, at the Crystal Palace. The number of exhibits was below the average, but the quality of the blooms staged was distinctly above it, most noticeable being the marked advance in the amateur section in form and method of staging.

On September 20, a meeting of the committee was held at the new Horticultural Hall, Vincent Square, on the occasion of the fortnightly show of the Royal Horticultural Society. Ten certificates were awarded to new varieties. The number of certificates awarded to new varieties in 1903 was nineteen, and in the present year twenty-one, out of a total of 125 seedlings exhibited.

The committee desire to convey their best thanks to the donors of special prizes; also to the Horticultural Club for kindly allowing the society's meetings to be held in their club room.

The amount offered in prize money at the 1904 exhibition was £106 10s., compared with £85 15s. in 1903, and the committee have decided to further increase this to £123 5s. in 1905. They would point out, however, that the present increase is only enabled to be made owing to economies in expenditure under various heads, and it is not due to an increasing revenue from members' subscriptions. Eighteen new members have joined during the year (which gain has been practically neutralised by resignations), and in only one case was the new comer introduced by an existing member. The committee would impress upon members that the future prosperity of the society must depend on individual efforts being made to obtain recruits, and would suggest that neighbouring Dahlia growers might often be approached with success if the advantages of membership, in return for an annual payment of five shillings, were put before them. The committee desire to express their thanks to Mr. C. Harman Payne for kindly allowing his "Bibliography of the Dahlia" to appear in the "Official Catalogue and Culture Guide," and regret that the acknowledgment was omitted in the publication itself. The income of the society from all sources, including the credit balance of £17 9s. 5d. from the year 1903, amounted to £159 5s. 5d., and the entire expenditure, including the payment of all prizes awarded at the annual exhibition, amounted to £166 3s. 11d., leaving a balance in the treasurer's hands of £23 4s. 6d. The annual exhibition will be held at the Crystal Palace on Thursday and Friday, September 7 and 8.

A meeting will be held at the new Horticultural Hall, Vincent Square, on September 26, for the purpose of awarding certificates to seedling Dahlias. Entries will be received by the hon. secretary at the Horticultural Hall before 11.30 a.m. on the morning of the show. "Fellows" of the National Dahlia Society are entitled to four passes, admitting to the society's grand exhibition at the Crystal Palace on September 7 and 8; "associates" to two passes; and "ordinary members" to one pass. Each fellow, associate, or ordinary member, on joining the society, will receive a copy of the "Official Catalogue and Culture Guide of the National Dahlia Society." Fellows, associates, and ordinary members alone have the privilege of exhibiting at the exhibitions of the National Dahlia Society.

ST. IVES SHOW, HUNTS.

ON Monday, the 19th inst., the above show was held in a large tent adjoining the Cattle Market, and proved to be a most interesting and successful exhibition. This was largely due to the splendid energy and untiring exertions of the honorary treasurer, Mr. R. Copley, who, with the secretary, Mr. G. H. Cannon, and the committee, are to be warmly congratulated upon making this show so successful as it annually is. The show consists of farm and dairy produce, roots, vegetables, and fruits, and in all sixty-six classes were provided. In nearly every case the prizes were keenly contested, and it was a real pleasure to see so much interest taken. Agricultural roots were exhibited in large numbers, and very fine specimens of the different types were on view; particularly noticeable were the Kohl Rabi, as many as sixteen competing in a single class for six specimens. Potatoes, both round and kidney, were well shown in nearly every case, the tubers being of medium size and beautifully clean. For twelve round, Mr. H. Goodman, St. Ives, was a splendid first, Mr. F. T. Beeton, Ramsay Hollow, being second. For twelve kidney, Mr. R. Stevens, Gaynes Hall Gardens, secured the first; Mr. T. Lockie, Diddington, second. Some fine bulbs were exhibited in the class for twelve Onions, and that veteran grower Mr. T. Lockie was well first with exceptionally good and well-kept specimens; Mr. R. Stevens, second, with equally well ripened but smaller bulbs. In a class for six long and six short horn Carrots several fine lots, for so late in the season, were staged, Mr. J. W. Laud, Bluntisham, securing first, and Mr. J. Arnon, Fenstanton, second. The fruit competition was remarkably keen, as many as thirty-three showing in the class for five dessert Apples, excluding Cox's Orange Pippin. Mr. W. Hinson, St. Ives, secured the premier award here, closely followed by Mr. J. W. Laud. Twenty dishes of fine cooking Apples were staged, Mrs. Margan, Fenstanton, being first with remarkable specimens of Lord Derby. In a class for five Cox's Orange Pippin twenty-three lots were set up, Sir A. W. Marshall, Buckden Towers, being a splendid first; second, Mr. J. Linton, Stirtloe; third, Mr. C. Cousins, Diddington. Mr. F. W. Seabrook was first for three varieties of cooking Apples, and Mr. H. Gilliat, Abbot's Ripton Hall, for three varieties of dessert Apples. The competition for dessert Pears was nearly as largely contested, and many well kept dishes were shown, especially that splendid variety Josephine de Malines.

NATIONAL AURICULA AND PRIMULA.

THE annual general meeting of this society took place at the Hotel Windsor on the 17th inst., when there was a good attendance of members. The twenty-eighth annual report set forth that there had been a slight diminution in the members during the past year, and an appeal is made to members to strengthen the society by bringing in new members. There was also a corresponding falling off in the amount of subscriptions for the past year. Still, the committee are able to carry forward a balance. The exhibition which took place on April 19 last was in every way a decided success, and reflected the greatest credit upon the exhibitors. One satisfactory feature was the fine quality of the flowers exhibited by new members. The best thanks of the society were given to Mr. J. Douglas for generously presenting four medals for competition, also for his kindness in distributing choice seeds of alpine Auriculas to the members, a gift which is greatly appreciated by them. Thanks were also given to Mr. W. Smith of Bishop's Stortford for the encouragement he gives to new exhibitors by providing the prizes in three classes specially set apart for such. The support given to the society by the Royal Horticultural Society in granting a donation to the funds of the society, and for the arrangements made to facilitate the staging of the flowers, is also acknowledged, as also the kindness of the committee of the Horticultural Club for the use of their room for the annual and committee meetings.

The treasurer's statement shows an income of £72 16s. 8d. for the year, including the balance in hand; the expenditure was £71 10s. 9d., including £55 17s. 6d. awarded in prizes, a larger sum than in 1903.

The president, vice-presidents, and committee were re-elected, and the name of Mr. W. Bathgate-Cranfield was added. The auditors and honorary secretary and treasurer (Mr. T. E. Henwood) were also re-elected. The schedule of prizes underwent some revision, and it was announced that Mr. W. B. Cranfield would give the first prize of one guinea in the class for four show Auriculas, dissimilar, and Mr. P. Riddell the same sum as a first prize in the class for six alpine Auriculas, dissimilar. Miss Willmott also continues her special prizes of one guinea, and Mr. James Douglas his gift of the Royal Horticultural Society's medals.

The annual exhibition is fixed to take place in the exhibition hall of the Royal Horticultural Society, Vincent Square, on Tuesday, April 25, the council contributing the sum of £10 to the prize list as heretofore. Mr. T. E. Henwood was heartily thanked for his services as honorary treasurer and secretary.

CARDIFF GARDENERS' ASSOCIATION.

The Cardiff Gardeners and friends met at the Sandringham Hotel on Wednesday, the 7th inst., and entertained Mr. John Basham and Sou to a dinner given in their honour as an appreciative recognition of the many kindnesses extended to the Gardeners and friends by Mr. and Mrs. Basham and family, and particularly the hospitality shown on the occasions of the two enjoyable outings to Bassaleg, 1903-4. Mr. E. H. Bateman, F.R.H.S., presided over a large and representative gathering. After an excellent dinner served by Mr. Smith (the host), the toast "The King and Royal Family" was given by the chairman, with musical honours. The next toast was that "Our Guests," proposed by the chairman and received with unbounded enthusiasm, so popular is this veteran pomologist in Cardiff. Mr. Basham, sen., in reply, said he desired to thank the Gardeners on behalf of himself, Mrs. Basham, and family, for the unexpected kindness to them that evening, and, giving a brief history of his life and much valuable advice to the meeting in general, concluded by saying that as long as the name of Basham and Bassaleg went together those present at the dinner would be ever welcome. "The Visitors" were next proposed by Mr. T. Clarke, and responded to by Mr. Fletcher. "The Gardeners" was proposed by Mr. J. Marsh, and responded to by Mr. T. Clarke, who said the gathering was the largest that had been brought together for at least ten years. Mr. Fletcher proposed the hon. sec. (John Julian), who had charge of the arrangements. Messrs. Hodge, Parsons, and Jones supplied the vocal and instrumental part of the proceedings. The hon. sec. proposing a vote of thanks to the chairman brought the proceedings to a close.

A meeting was held at the Sandringham Hotel on Tuesday, the 13th inst., when Mr. T. Clarke presided. An excellent lecture was delivered by Mr. C. Orchard (representative of the Bristol Gardeners' Association) on "Greenhouse Climbers," embracing the majority of the most useful kinds for decorative purposes, and dealing with the cultivation and general treatment. A good many useful hints were given during the discussion. The best thanks of the association were accorded Mr. Orchard, who briefly thanked the members.—J. JULIAN.

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.

Bulbs and tubers (W. J. SHARP).—Tuberous Begonias that were lifted at the end of October, and after having been allowed to get partially dried, were placed closely together in shallow boxes of moderately dry Cocoanut fibre, now require to be overhauled for the purpose of removing any that may be decayed, and giving the sound tubers a fresh supply of damp fibre to keep them plump till it is time to start them into growth in frames. Gladiolus roots cannot well be kept too dry, but the place where they are stored should be cool to prevent them starting into premature growth. Our roots are laid thinly on the shelves of a dry fruit room, together with a quantity of Liliums that are closely packed in slightly moist soil. Anemones and Ranunculuses have wintered well on the same shelves, and these have now been put ready for planting as soon as the ground is sufficiently dry to ensure the work being done well.

Early Radishes (FOREMAN).—Quickly grown early Radishes are the most digestible, and, in addition, form a very attractive dish on the breakfast table. They may be either grown with the earliest Carrots, or better still, in a frame separately. In the former case, the drills should be drawn midway between those intended for Carrots, the seed being sown thinly so as to necessitate but little thinning out. It germinates very quickly, and the frames must therefore be uncovered before the Carrots are visible, or the Radishes

will be unduly drawn. Not much air is needed, but all the light possible should be admitted. If the seedlings are crowded they will fail to bulb quickly, and perhaps not at all; they ought therefore to be thinned out early, leaving them from 2 inches to 3 inches apart. When a frame is given wholly up to them, this may be prepared similarly to that intended for Carrots, and the drills formed 6 inches apart, the seed being sown thinly, and the bed duly smothered over.

Diseased Rose wood (WORKSOP).—The sample of Rose wood sent shows that the bark is badly infected with a fungus similar to that seen on cankered fruit trees. No doubt it is attributable to the same cause which promotes canker on fruit trees. The roots have got into some deep poor or sour soil, and because of that the wood is immature and the bark susceptible to disease. We should advise, if it is possible, that you lift your Rose tree from its present soil, that you moderately prune the roots, then replant it, keeping the roots laid out more shallow and level, burying them about 6 inches deep. But before doing that cast the top soil on to one side, then throw out and wheel away some 6 inches of the bottom soil and replace it with as good fresh soil as you can. Place some specially good fine soil, including decayed leaf-soil, old hot-bed manure, and sharp sand about the roots before covering up with the ordinary soil. Tread it gently to settle it well down, then place over the whole a light layer of longstable manure to help protect the roots from sharp frosts during the winter. A few weeks later, after the soil is well settled, prune the tree very hard, cutting out fully one-half its wood and having it burned. Then make up a solution of 1oz. of soda and 1oz. of commercial potash dissolved in a quart of boiling water. To that add 2oz. of soft soap and a little clay to make it as thick as paint. Then with a brush thoroughly coat all the bark of each stem or shoot over and leave it. It will be well, however, to leave the prospective buds untouched. That treatment should result in a complete cure. When these fungoid diseases get hold of trees, Roses, or other things only drastic treatment will act as real cures.

Retarding Roses (M. V. R.).—We take it that you desire your Roses to blossom the latter part of June and through July. There are three methods whereby this could be accomplished, viz., by late pruning, by transplanting, or by removing flower-buds in May. If your Roses consist mainly of Hybrid Perpetuals we should advise late pruning. Instead of pruning in March leave the operation until the middle of April. You could palot the cut ends of the shoots with grafting wax or painter's knotting to prevent the loss of sap. The second method, namely, transplanting to spring, has much to commend it. This could only be successfully carried out with plants that had been transplanted not more than three years ago. We have often adopted this plan in order to prolong the blossoming of our Rose garden. Thirdly, removing the buds early in May is a plan often resorted to. We have found frequently, when Rose shoots have been partially injured by spring frosts, that the cutting back has caused the plants to blossom much later. We should advise this plan mostly as regards Tea Roses, and the first named plan with the Hybrid Perpetuals. With the single-flowered and ordinary so-called garden Roses late pruning would be the best practice to adopt, but so much depends upon the season. If you could allot a piece of ground each year for planting out some Briers and Manetti stocks, and if these were budded with Hybrid Perpetuals and Hybrid Teas you would have plenty of fine quality blossom all through July. These yearling plants are always later in flowering than are the established plants.

Vine scale (T. W.).—Judging by the portion of wood and leaf sent your Vines are more badly affected with white scale (*Coccus vitis*) than any Vines we have yet seen. So bad is your case that only the most drastic remedies will meet it. First pull off every leaf and carefully place them into baskets, then burn them. Next prune the Vines very hard indeed all over, remove and burn every portion. Next remove from the main stems, or rods, all loose stringy bark. Cleanse with strong soapy soda hot water all glass and wood. Wash the brickwork with hot soda water, then coat with fresh hot lime-white as hot as can be applied. Next get 4oz. of soda and 4oz. of common potash or pearl ash, dissolve both in boiling water 2 quarts each. Add to that 1lb. of soft soap, mix with dry clay, half a pint of paraffin, and add that to the other, so that a thick paste results. Then paint over every portion of the stems, thoroughly coating them, but spare the base-buds left to break next year. These may be washed with warm water only, lest the mixture coat and check growth. Let that solution remain until it naturally peels off. That would kill or suffocate the scale. It will also be well finally to carefully remove 3 inches of the soil on the border, if it be inside, and replace it with quite fresh soil. If your vine is heated by hot-water pipes it may help to keep the insect in check next summer, if you make up a wash of sulphur and soap, and coat your pipes with it once a month, making the pipes hot now and then at night when the house is closed. No ordinary remedy will check the insect you are troubled with. Many would root out their Vines and burn them, cleanse and paint the house, and plant new Vines.

Flower garden (J. H. STRAHER).—There are quite a number of ways in which the garden may be treated with good results. Those more or less formal would suit we think by reason of its size and general character, so far as these can be rightly ascertained by the plan you submit. What would prove the most suitable would of necessity largely depend upon environment, while your own tastes and desires would naturally have to be consulted. Retaining for the moment somewhat of the character of the central portion, we would discard the 8 feet wide herbaceous borders at the southern side and throw these into the larger space for treatment generally as a grass plot. The central part from east to west may be in one plot, or as now intersected by a path of some kind. The narrow border on the north side would also come into the same area. Assuming that greater floral effect is the aim at present, we will admit this central portion to be in two equal parts. At each of the corners thus produced a bed could be formed, having its approxi-

mate centre at the corner point, and, while extending in parallel line to each direction—i.e., north, south, east, and west—open to the lawn with an informal outline. These beds may contain climbing Roses on rustic poles, and be filled otherwise with choice bulbs, such as Daffodils, Irises, Lilies, Gladioli, Muscaris, Chinodoxa, &c., with Paonies, Alstroemeria, Flag Irises, and Iris species in great variety, Pyrethrums, Sunflowers, and many more. In the plants named there is a great wealth of material and variety also. Between the points of these beds a bed of different form could be placed. In these could be massed bulbs for spring, Clove Carnations for summer, and Gladiolus for autumn. With the Daffodils deeply planted these could occupy any one bed, while Daffodils and tuberous Begonias could occupy another, and so forth. A large centre bed in each plot could be made gay either with permanent subjects or annual bedding things. Shrubs, flowering and otherwise, would find a place. Over the flagged pathway a good pergola could be made, and this alone would create quite a feature when clothed with Clematises, Roses, Wistaria, and other things. A pergola may also be placed on the opposite side. The same area could also be laid out more freely into beds, the corners rendered into rocky beds, from which a large array of choice bulbs, alpines, and the like could be seen to advantage, and if desired water plants could be introduced. The shrubbery at the house end could be made very effective with Hollies, among which, some of the best Lilies and Eremurus—the latter with towering spikes of white or pink flowers—could be permanently planted. Beds of hybrid Tea and other Roses, carpeted with spring bulbs or Tufted Pansies, could also be arranged, once the chief central or governing part was decided upon. Adopting a different view entirely, the central part could be devoted to spring and summer gardening, that is to say, the annual effective bedding of bulbs in spring, and masses of other things for the remainder—Begonias, Ivy Pelargoniums, and the like, beds of Cannas, or of select Dahlias appearing at the extreme end from house. With such an arrangement a fountain basin may occupy the centre of the lawn, with choice Water Lilies therein. If this idea were favoured, much could be made of the remainder by grouping shrubs, Lilies, Paeonies, Delphiniums, and a host of other choice and good things, as Carnations, Pyrethrums, Phloxes, &c., not in solitary plants, but in fine masses that catch the eye and that make the garden a pleasure and a delight. The dry wall facing croquet ground should also be capable of treatment, and many things could be planted that would be very beautiful when in flower, and decidedly more pleasing than bare masonry at any season. If it is likely we can further assist you, please write us again, as it is our desire to help our readers as much as possible.

Mocassin flower (CYPRIPEDIUM SPECTABILE).—This beautiful species is so hardy that we doubt if any frost experienced in this country or Holland would have the least effect upon the plant. Being a deciduous kind, that is dying down each year and forming buds quite below the surface of the soil, it is better able to endure frost and cold than if the plant did not die down. If, however, you have any doubt in the matter you may cover the crowns with fine peat, leaves, or even short, dry litter from the manure heap. Either of these would form a quite adequate covering for its protection and safety. In our ordinary winters in England little snow covers the ground, but we have known the plant frozen for weeks in succession without covering, and with the crown-buds of the plant quite near the surface, without being injured in the least. As a precautionary step, however, when the plants have been in a bog-bed, artificially supplied with water, we take off the supply of water from November to February inclusive. In the natural tufts the flowering crowns are always buried deeply in the close vegetable matter that abounds, and this obvious lesson should be kept in mind when planting it artificially.

Chrysanthemums on single stems, to flower on the break bud (R. K.).—It has been our pleasure to reply to your interesting questions on former occasions, and the present is no exception to the rule. We gather that you wish us to name varieties that open the break bud satisfactorily, and give a good flower as the result. You also appear to have a preference for Chrysanthemums of the Japanese incurved type, and we are interested to learn that in St. Petersburg these blooms keep better than those of looser build. Large and handsome flowers of white, mauve, pink, and rosy pink colours are desired, we understand, and on this account we will confine our selection to those of the colours named. Your experience with varieties Princess Al de Monaco, Mrs. J. C. Neville, Chas. Longley, and Mme. Paolo Radaelli we are glad to know has been one of success, and those in the unjoined list we have every reason to believe will be equally good: Australis, rosy amaranth inside petals, with silvery reverse, tall; Western King, pure white, Mrs. S. C. Frobin, clear pink, with silvery reverse; Mrs. Barkley, rosy mauve; W. Duckham, pale mauve, a very large and handsome flower; Miss Alice Byron, pure white, very chaste; Mme. Louis Remy, pure white sport from Mrs. C. Harman Payne; Mme. Philippe Rivoire, pure white, rather late; Mme. Gabrielle Derbrie, Malmalson-pink; Mrs. J. Dunn, a large deeply-built reflexed Japanese flower, white, splendid quality; Renee, lilac-mauve, large full flower; Mrs. C. Beckett, pure white, reflexed Japanese; Lady Conyers, a full flower of a rosy pink colour; Lady Hopetoun, a very large flower, colour heliotrope-pink; Mme. Herrewewe, a pure white sport from Australis; Miss Lucy Evans, a lovely shade of heliotrope-pink; Mrs. E. Hummel, pinky white, shaded yellow, very large flower; Mrs. Geo. Milham, bright rose-pink, excellent; Souvenir de Pere Calvat, white, tinted rose and yellow; and Seagull, massive flower, white.

GARDENING APPOINTMENT.

MR. PEARE has been appointed head gardener to C. E. Sandford, Esq., St. Mivver House, Wadebridge, North Cornwall.

